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FEDERAL REGISTER

VOLUME 18 NUMBER 239

Washington, Wednesday, December 9, 1953

TITLE 5—ADMINISTRATIVE PERSONNEL

Chapter I—Civil Service Commission

PART 6—EXCEPTIONS FROM THE COMPETITIVE SERVICE

PUBLIC HOUSING ADMINISTRATION

Effective upon publication in the FEDERAL REGISTER, subparagraph (2) is added to § 6.142 (d) as set out below:

§ 6.142 *Housing and Home Finance Agency.* * * *

(d) *Public Housing Administration.* * * *

(2) Until June 30, 1956, the position of Special Representative at San Diego, California.

(R. S. 1753, sec. 2, 22 Stat. 403; 5 U. S. C. 631, 633. E. O. 10440, March 31, 1953, 18 F. R. 1823)

UNITED STATES CIVIL SERVICE COMMISSION,
[SEAL] WM. C. HULL,
Executive Assistant.

[F. R. Doc. 53-10259; Filed, Dec. 8, 1953; 8:47 a. m.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

Subchapter O—Regulations Applicable to Certain Vessels During Emergency

[CGFR 53-51]

PART 154—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS[1]

NATIONALITY OF CREWS OF NON-SUBSIDIZED MERCHANT VESSELS

The purpose of this order is to cancel the general waiver designated § 154.11, as well as 33 CFR 19.11, effective January 1, 1954, regarding the nationality of crews of non-subsidized merchant vessels.

It has been determined upon investigation that there is sufficient experienced personnel in the merchant marine industry to meet the requirements of certain navigation and vessel inspection laws relating to manning of merchant vessels and to meet the citizenship requirements for crews of non-subsidized merchant vessels and that the continuation of this waiver is no longer necessary. It is hereby found that compliance with the notice of proposed rule making, public rule making procedure thereon, and effective date requirements of the Administrative Procedure Act is contrary to the public interest.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by an order of the Acting Secretary of the Treasury dated January 23, 1951, identified as CGFR 51-51, and published in the FEDERAL REGISTER dated January 26, 1951 (16 F. R. 731), the following waiver order is canceled effective January 1, 1954:

Section 154.11 *Nationality of crews of nonsubsidized merchant vessels* is revoked: *Provided,* That any vessel where the crew is engaged on or before December 31, 1953, under the terms of this waiver such vessel may continue with such deficiencies in its crew for the remainder of the period for which the entire crew is signed on and no penalty of law shall be imposed because of failure to comply with the provisions of 46 U. S. C. 672a which were relaxed by this waiver.

(61 Stat. 33, 685; 46 U. S. C. Sup., note prec. 1)

Dated: December 1, 1953.

[SEAL] A. C. RICHMOND,
Rear Admiral, U. S. Coast Guard,
Acting Commandant.

[F. R. Doc. 53-10256; Filed, Dec. 8, 1953; 8:47 a. m.]

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

PART 19—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS

NATIONALITY OF CREWS OF NON-SUBSIDIZED MERCHANT VESSELS

CROSS REFERENCE: For cancellation of § 19.11, see F. R. Doc. 53-10256, Title 46, Chapter I, Part 154, *supra.*

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[1] This is also codified in 33 CFR Part 19.

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FEDERAL REGISTER

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TITLE 7—AGRICULTURE

Chapter I—Production and Marketing Administration (Standards, Inspections, Marketing Practices), Department of Agriculture

Subchapter C—Regulations and Standards Under the Farm Products Inspection Act

PART 52—PROCESSED FRUITS AND VEGETABLES, PROCESSED PRODUCTS THEREOF, AND CERTAIN OTHER PROCESSED FOOD PRODUCTS

RECODIFICATION

By virtue of the authority (18 F. R. 4839) vested in me by the Secretary of Agriculture and in accordance with the revised Federal Register regulations, the format of the regulations (7 CFR Part 52) governing the grading and certification of processed fruits and vegetables, processed products thereof, and certain other processed food products, and the United States Standards with respect thereto, which are operative pursuant to the applicable provisions of the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.) and the Department of Agriculture Appropriation Act, 1954 (Pub. Law 156, 83rd Cong., approved July 28, 1953), is recodified as hereinafter set forth.

The recasting of the format due to such recodification is not intended, nor shall it be deemed to make any substantive change in said regulations. The services and programs provided by the regulations are currently in effect except the United States Standards for concentrated orange juice for manufacturing and canned concentrated orange juice which become effective on December 12 1953, and for frozen concentrate for lemonade on December 19, 1953. Therefore, with these exceptions, the regulations as presented in recodified form shall become effective upon publication in the FEDERAL REGISTER so as to avoid any interruption in the continuity of such services and programs.

The recodification is set forth below.

Issued at Washington, D. C., this 7th day of December, 1953.

[SEAL] GEORGE A. DICE,
Deputy Assistant Administrator, Production and Marketing Administration.

PART 52—PROCESSED FRUITS AND VEGETABLES, PROCESSED PRODUCTS THEREOF, AND CERTAIN OTHER PROCESSED FOOD PRODUCTS [1]

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[1] Among such other processed food products are the following: Honey; molasses, except for stock feed; nuts and nut products, except oil; sugar (cane, beet, and maple); sirups (blended), sirups, except from grain; marine food products, except oil.

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FACTORS OF QUALITY

52.803 Ascertaining the grade.
52.804 Ascertaining the rating for each factor.
52.805 Color.
52.806 Absence of defects.
52.807 Character.

LOT CERTIFICATION TOLERANCES

52.808 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.809 Score sheet for frozen red sour (tart) pitted cherries.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED SWEET CHERRIES

IDENTITY, TYPES, STYLES, AND GRADES

52.821 Identity.
52.822 Types of canned sweet cherries.
52.823 Styles of canned sweet cherries.
52.824 Grades of canned sweet cherries.

LIQUID MEDIA, FILL OF CONTAINER, DRAINED WEIGHT

52.825 Liquid media and Brix measurements for canned sweet cherries.
52.826 Fill of container for canned sweet cherries.
52.827 Recommended minimum drained weight.
52.828 Compliance with recommended drained weights.

FACTORS OF QUALITY

52.829 Ascertaining the grade.
52.830 Ascertaining the rating for the factors which are scored.
52.831 Color.
52.832 Uniformity of size.
52.833 Absence of defects.
52.834 Character.

LOT CERTIFICATION TOLERANCES

52.835 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.836 Score sheet for canned sweet cherries.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CREAM STYLE CORN

IDENTITY, COLORS, AND GRADES

52.851 Identity.
52.852 Colors of canned cream style corn.
52.853 Grades of canned cream style corn.

FILL OF CONTAINER

52.854 Fill of container for canned cream style corn.

FACTORS OF QUALITY

52.855 Ascertaining the grade.
52.856 Ascertaining the rating for the factors which are scored.
52.857 Color.
52.858 Consistency.
52.859 Absence of defects.
52.860 Tenderness and maturity.
52.861 Flavor.

LOT CERTIFICATION TOLERANCES

52.862 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.863 Score sheet for canned cream style corn.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED WHOLE KERNEL (OR WHOLE GRAIN) CORN

IDENTITY, COLOR, AND GRADES

52.881 Identity.
52.882 Color of canned whole kernel (or whole grain) corn.
52.883 Grades of canned whole kernel (or whole grain) corn.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.884 Recommended fill of container.
52.885 Recommended minimum drained weight.

FACTORS OF QUALITY

52.886 Ascertaining the grade.
52.887 Ascertaining the rating for the factors which are scored.
52.888 Color.
52.889 Cut.
52.890 Absence of defects.
52.891 Tenderness and maturity.
52.892 Flavor.

LOT CERTIFICATION TOLERANCES

52.893 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.894 Score sheet for canned whole kernel (or whole grain) corn and canned whole kernel (or whole grain) and vacuum pack corn.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN WHOLE KERNEL (OR WHOLE GRAIN) CORN

PRODUCT DESCRIPTION, COLOR, AND GRADES

52.911 Product description.
52.912 Color of frozen whole kernel (or whole grain) corn.
52.913 Grades of frozen whole kernel (or whole grain) corn.

FACTORS OF QUALITY

52.914 Ascertaining the grade.
52.915 Ascertaining the rating of the factors which are scored.
52.916 Color.
52.917 Absence of defects.
52.918 Tenderness and maturity.

LOT CERTIFICATION TOLERANCES

52.919 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.920 Score sheet for frozen whole kernel (or whole grain) corn.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CORN-ON-THE-COB

PRODUCT DESCRIPTION, COLOR AND GRADES

52.931 Product description.
52.932 Colors of frozen corn-on-the-cob.
52.933 Grades of frozen corn-on-the-cob.

FACTORS OF QUALITY

52.934 Ascertaining the grade.
52.935 Ascertaining the rating of the factors which are scored.
52.936 Color.
52.937 Absence of defects.
52.938 Tenderness and maturity.

LOT CERTIFICATION TOLERANCES

52.939 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.940 Score sheet for frozen corn-on-the-cob.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CRANBERRY SAUCE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.951 Product description.
52.952 Styles of canned cranberry sauce.
52.953 Grades of canned cranberry sauce.

FILL OF CONTAINER

52.954 Recommended fill of container.

FACTORS OF QUALITY

52.955 Ascertaining the grade.
52.956 Ascertaining the rating for the factors which are scored.
52.957 Color.
52.958 Consistency and texture.
52.959 Absence of defects.
52.960 Flavor and odor.

EXPLANATION

52.961 Explanation of terms.

LOT CERTIFICATION TOLERANCES

52.962 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.963 Score sheet for canned cranberry sauce.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DRIED CURRANTS

PRODUCT DESCRIPTION, TYPES, AND GRADES

52.981 Product description.
52.982 Types (varieties) of dried currants.
52.983 Grades of dried currants.

DEFINITIONS AND EXPLANATIONS

52.984 Explanation of terms.

WORK SHEET

52.985 Work sheet for dried currants.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DATES

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1001 Product description.
52.1002 Styles of dates.
52.1003 Grades for dates.

DEFINITIONS AND EXPLANATIONS

52.1004 Definitions of varying degrees of uniformity of color.
52.1005 Definitions of varying degrees of uniformity of size.
52.1006 Definitions of varying degrees of character.
52.1007 Definition of defects.

FACTORS OF QUALITY

Sec.
52.1008 Specifications of allowances and limitations for defects with respect to whole dates and whole pitted dates.

WORK SHEET

52.1009 Work sheet for dates.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DRIED FIGS

PRODUCT DESCRIPTION, TYPES, STYLES, SIZES, AND GRADES

52.1021 Product description.
52.1022 Types (colors) of dried figs.
52.1023 Styles and types of packs of dried figs.
52.1024 Sizes of Style I (a), whole, loose, dried figs.
52.1025 Grades of dried figs (not for manufacturing.)
52.1026 Moisture allowances for grades (not for manufacturing) of dried figs.
52.1027 Grades of dried figs for manufacturing.
52.1028 Moisture allowances for grades for manufacturing of dried figs.

DEFINITIONS AND EXPLANATIONS

52.1029 Definitions of varying degrees of maturity.
52.1030 Definitions of varying degrees of uniformity of size.
52.1031 Definitions of varying degrees of uniformity of color.
52.1032 Definitions of defect.
52.1033 Definition of varying degrees of flavor and odor.

WORK SHEETS

52.1034 Work sheet for grades (not for manufacturing) of dried figs.
52.1035 Work sheet for grades for manufacturing of dried figs.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED FRUIT COCKTAIL

IDENTITY AND GRADES

52.1051 Identity
52.1052 Grades of canned fruit cocktail.

PROPORTIONS

52.1053 Proportion of fruit ingredients.

LIQUID MEDIA, FILL OF CONTAINER, DRAINED WEIGHTS

52.1054 Liquid media and Brix measurements for canned fruit cocktail.
52.1055 Fill of container for canned fruit cocktail.

FACTORS OF QUALITY

52.1056 Ascertaining the grade.
52.1057 Ascertaining the rating for the factors which are scored.
52.1058 Clearness of liquid media.
52.1059 Color.
52.1060 Uniformity of size.
52.1061 Absence of defects.
52.1062 Character.

LOT CERTIFICATION TOLERANCES

52.1063 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1064 Score sheet for canned fruit cocktail.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FRUIT JELLY

IDENTITY, TYPES, KINDS, AND GRADES

52.1081 Identity.
52.1082 Types of fruit jelly.
52.1083 Kinds of fruit jelly.
52.1084 Grades of fruit jelly.

FILL OF CONTAINER

Sec.
52.1085 Recommended fill of container.

FACTORS OF QUALITY

52.1086 Ascertaining the grade.
52.1087 Ascertaining the rating for each factor.
52.1088 Consistency.
52.1089 Color.
52.1090 Flavor.

LOT CERTIFICATION TOLERANCES

52.1091 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1092 Score sheet for fruit jelly.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FRUIT PRESERVES (OR JAMS)

IDENTITY, TYPES, KINDS, AND GRADES

52.1111 Identity.
52.1112 Types of fruit preserves (or jams).
52.1113 Kinds of fruit preserves (or jams) according to Group I or Group II designations.
52.1114 Grades of fruit preserves (or jams).

FILL OF CONTAINER

52.1115 Recommended fill of container.

FACTORS OF QUALITY

52.1116 Ascertaining the grade.
52.1117 Ascertaining the rating for the factors which are scored.
52.1118 Consistency.
52.1119 Color.
52.1120 Absence of defects.
52.1121 Flavor.

LOT CERTIFICATION TOLERANCES

52.1122 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1123 Score sheet for fruit preserves (or jams).

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT

PRODUCT DESCRIPTION AND GRADES

52.1141 Product description.
52.1142 Grades of canned grapefruit.

LIQUID MEDIA AND FILL OF CONTAINER

52.1143 Recommended designations of liquid media and Brix measurements.
52.1144 Recommended fill of container.

FACTORS OF QUALITY

52.1145 Ascertaining the grade.
52.1146 Ascertaining the rating for the factors which are scored.
52.1147 Drained weight.
52.1148 Wholeness.
52.1149 Color.
52.1150 Absence of defects.
52.1151 Character.

EXPLANATIONS

52.1152 Explanation of terms.

LOT CERTIFICATION TOLERANCES

52.1153 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1154 Score sheet for canned grapefruit.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN GRAPEFRUIT

PRODUCT DESCRIPTION AND GRADES

52.1171 Product description.
52.1172 Grades of frozen grapefruit.

FACTORS OF QUALITY

Sec.
52.1173 Ascertaining the grade.
52.1174 Ascertaining the rating of each factor.
52.1175 Wholeness.
52.1176 Color.
52.1177 Absence of defects.
52.1178 Character.

LOT CERTIFICATION TOLERANCES

52.1179 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1180 Score sheet for frozen grapefruit.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT JUICE

PRODUCT DESCRIPTION, AND GRADES

52.1191 Product description.
52.1192 Grades of canned grapefruit juice.

FILL OF CONTAINER

52.1193 Recommended fill of container.

FACTORS OF QUALITY

52.1194 Ascertaining the grade.
52.1195 Ascertaining the rating of each factor.
52.1196 Color.
52.1197 Absence of defects.
52.1198 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1199 Definitions of terms as used in the standards.
52.1200 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1201 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1202 Score sheet for canned grapefruit juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED GRAPEFRUIT JUICE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1221 Product description.
52.1222 Styles of frozen concentrated grapefruit juice.
52.1223 Grades of frozen concentrated grapefruit juice.

FILL OF CONTAINER

52.1224 Recommended fill of container.

FACTORS OF QUALITY

52.1225 Ascertaining the grade.
52.1226 Ascertaining the rating for the factors which are scored.
52.1227 Color.
52.1228 Absence of defects.
52.1229 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1230 Definitions of terms as used in these standards.
52.1231 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1232 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1233 Score sheet for frozen concentrated grapefruit juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT AND ORANGE FOR SALAD

PRODUCT DESCRIPTION AND GRADES

52.1251 Product description.
52.1252 Grades of canned grapefruit and orange for salad.

LIQUID MEDIA AND FILL OF CONTAINER

Sec.
52.1253 Recommended designations of liquid media and Brix measurements.
52.1254 Recommended fill of container.

FACTORS OF QUALITY

52.1255 Ascertaining the grade.
52.1256 Ascertaining the rating for the factors which are scored.
52.1257 Drained weight.
52.1258 Wholeness.
52.1259 Color.
52.1260 Absence of defects.
52.1261 Character.

EXPLANATIONS

52.1262 Explanation of terms.

LOT CERTIFICATION TOLERANCES

52.1263 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1264 Score sheet for canned grapefruit and orange for salad.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE

PRODUCT DESCRIPTION AND GRADES

52.1281 Product description.
52.1282 Grades of canned blended grapefruit juice and orange juice.

FILL OF CONTAINER

52.1283 Recommended fill of container.

FACTORS OF QUALITY

52.1284 Ascertaining the grade.
52.1285 Ascertaining the rating of each factor.
52.1286 Color.
52.1287 Absence of defects.
52.1288 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1289 Definitions of terms.
52.1290 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1291 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1292 Score sheet for canned blended grapefruit juice and orange juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1311 Product description.
52.1312 Styles of frozen concentrated blended grapefruit juice and orange juice.
52.1313 Grades of frozen concentrated blended grapefruit juice and orange juice.

FILL OF CONTAINER

52.1314 Recommended fill of container.

FACTORS OF QUALITY

52.1315 Ascertaining the grade.
52.1316 Ascertaining the rating for the factors which are scored.
52.1317 Color.
52.1318 Absence of defects.
52.1319 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1320 Definitions of terms as used in these standards.
52.1321 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1322 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.1323 Score sheet for frozen concentrated blended grapefruit juice and orange juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPE JUICE

PRODUCT DESCRIPTION, TYPES, STYLES, AND GRADES

52.1341 Product description.
52.1342 Types of canned grape juice.
52.1343 Styles of canned grape juice.
52.1344 Grades of canned grape juice.

FILL OF CONTAINER

52.1345 Recommended fill of container.

FACTORS OF QUALITY

52.1346 Ascertaining the grade.
52.1347 Ascertaining the rating for the factors which are scored.
52.1348 Color.
52.1349 Absence of defects.
52.1350 Flavor.

EXPLANATIONS

52.1351 Explanation of terms.

LOT CERTIFICATION TOLERANCES

52.1352 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1353 Score sheet for canned grape juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN LEAFY GREENS

PRODUCT DESCRIPTION, KINDS, STYLES, AND GRADES

52.1371 Product description.
52.1372 Kinds of frozen leafy greens.
52.1373 Styles of frozen leafy greens.
52.1374 Grades of frozen leafy greens.

FACTORS OF QUALITY

52.1375 Ascertaining the grade.
52.1376 Ascertaining the rating for the factors which are scored.
52.1377 Color.
52.1378 Absence of defects.
52.1379 Character.

LOT CERTIFICATION TOLERANCES

52.1380 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1381 Score sheet for frozen leafy greens.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF EXTRACTED HONEY; HONEY

PRODUCT DESCRIPTION, TYPES, TYPE OF PROCESS, AND COLOR

52.1391 Product description.
52.1392 Types of extracted honey.
52.1393 Color of honey.
52.1394 Application of U. S. D. A. permanent glass color standards in classifying the color of honey.
52.1395 Tolerance for certification of color of officially drawn samples.

FILL OF CONTAINER

52.1396 Recommended fill of container.

GRADES

52.1397 Grades of honey.

FACTORS OF QUALITY

52.1398 Ascertaining the grade.
52.1399 Ascertaining the rating for each factor.
52.1400 Flavor.
52.1401 Absence of defects.
52.1402 Clarity.

LOT CERTIFICATION TOLERANCES

52.1403 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.1404 Score sheet for extracted honey.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATE FOR LEMONADE

PRODUCT DESCRIPTION AND GRADES

52.1421 Product description.
52.1422 Grades of frozen concentrate for lemonade.

FILL OF CONTAINER

52.1423 Recommended fill of container.

FACTORS OF QUALITY

52.1424 Ascertaining the grade.
52.1425 Ascertaining the rating for the factors which are scored.
52.1426 Color.
52.1427 Absence of defects.
52.1428 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1429 Definition of terms.
52.1430 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1431 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1432 Score sheet for frozen concentrate for lemonade.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF ORANGE MARMALADE

PRODUCT DESCRIPTION, KINDS, STYLES, TYPES, AND GRADES

52.1451 Product description.
52.1452 Kinds of orange marmalade.
52.1453 Styles of orange marmalade.
52.1454 Types of orange marmalade.
52.1455 Grades of orange marmalade.

FILL OF CONTAINER

52.1456 Recommended fill of container.

FACTORS OF QUALITY

52.1457 Ascertaining the grade.
52.1458 Ascertaining the rating for the factors which are scored.
52.1459 Color.
52.1460 Consistency and character.
52.1461 Absence of defects.
52.1462 Flavor and odor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1463 Explanation of terms or analyses.

LOT CERTIFICATION TOLERANCES

52.1464 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1465 Score sheet for orange marmalade.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED MUSHROOMS

IDENTITY, COLOR, STYLES, AND GRADES

52.1481 Identity.
52.1482 Color.
52.1483 Styles of canned mushrooms.
52.1484 Grades of canned mushrooms.

SIZES, FILL OF CONTAINER, AND DRAINED WEIGHTS

52.1485 Sizes of mushrooms in whole and button mushrooms.
52.1486 Fill of container for canned mushrooms.
52.1487 Minimum drained weight.

FACTORS OF QUALITY

52.1488 Ascertaining the grade.
52.1489 Ascertaining the rating for the factors which are scored.
52.1490 Color.

Sec.
52.1491 Uniformity of size and shape.
52.1492 Absence of defects.
52.1493 Character.

LOT CERTIFICATION TOLERANCES

52.1494 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1495 Score sheet for canned mushrooms.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN OKRA

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1511 Product description.
52.1512 Styles of frozen okra.
52.1513 Grades of frozen okra.

SIZE

52.1514 Size of frozen okra.

FACTORS OF QUALITY

52.1515 Ascertaining the grade.
52.1516 Ascertaining the rating for each factor.
52.1517 Color.
52.1518 Absence of defects.
52.1519 Character.

LOT CERTIFICATION TOLERANCES

52.1520 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1521 Score sheet for frozen okra.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF OLIVE OIL

PRODUCT DESCRIPTION AND GRADES

52.1531 Product description.
52.1532 Grades of olive oil.

FILL OF CONTAINER

52.1533 Recommended fill of container.

FACTORS OF QUALITY

52.1534 Ascertaining the grade.
52.1535 Ascertaining the rating for each factor.
52.1536 Free fatty acid content.
52.1537 Absence of defects.
52.1538 Odor.
52.1539 Flavor.

LOT CERTIFICATION TOLERANCES

52.1540 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1541 Score sheet for olive oil.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED ORANGE JUICE

PRODUCT DESCRIPTION AND GRADES

52.1551 Product description.
52.1552 Grades of canned orange juice.

FILL OF CONTAINER

52.1553 Recommended fill of container.

FACTORS OF QUALITY

52.1554 Ascertaining the grade.
52.1555 Ascertaining the rating of each factor.
52.1556 Color.
52.1557 Absence of defects.
52.1558 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1559 Definition of terms.
52.1560 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1561 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1562 Score sheet for canned orange juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED ORANGE JUICE

PRODUCT DESCRIPTION, STYLES, AND GRADES

Sec.
52.1581 Product description.
52.1582 Styles of frozen concentrated orange juice.
52.1583 Grades of frozen concentrated orange juice.

FILL OF CONTAINER

52.1584 Recommended fill of container.

FACTORS OF QUALITY

52.1585 Ascertaining the grade.
52.1586 Ascertaining the rating for the factors which are scored.
52.1587 Color.
52.1588 Absence of defects.
52.1589 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1590 Definitions of terms as used in these standards.
52.1591 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.1592 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1593 Score sheet for frozen concentrated orange juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PEARS

IDENTITY, STYLES, AND GRADES

52.1611 Identity.
52.1612 Styles of canned pears.
52.1613 Grades of canned pears.
52.1614 Grades of canned solid-pack pears.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

52.1615 Liquid media and Brix measurements for canned pears.
52.1616 Fill of container for canned pears.
52.1617 Recommended fill of container for canned "solid-pack" pears.
52.1618 Recommended minimum drained weight.
52.1619 Compliance with recommended drained weights.

FACTORS OF QUALITY

52.1620 Ascertaining the grade.
52.1621 Ascertaining the rating for the factors which are scored.
52.1622 Color.
52.1623 Uniformity of size and symmetry.
52.1624 Absence of defects.
52.1625 Character.

LOT CERTIFICATION TOLERANCES

52.1626 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1627 Score sheet for canned pears.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED FIELD PEAS AND CANNED BLACK-EYE PEAS

IDENTITY AND GRADES

52.1641 Identity.
52.1642 Grades of canned peas.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.1643 Recommended fill of container.
52.1644 Recommended drained weight.

FACTORS OF QUALITY

52.1645 Ascertaining the grade.
52.1646 Ascertaining the rating of each factor.
52.1647 Color.
52.1648 Absence of defects.
52.1649 Character.

LOT CERTIFICATION TOLERANCES

Sec.
52.1650 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1651 Score sheet for canned field peas and canned black-eye peas.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN FIELD PEAS AND FROZEN BLACK-EYE PEAS

PRODUCT DESCRIPTION, DEFINITIONS, AND GRADES

52.1661 Product description.
52.1662 Definitions.
52.1663 Grades of frozen peas.

FACTORS OF QUALITY

52.1664 Ascertaining the grade.
52.1665 Ascertaining the rating for the factors which are scored.
52.1666 Color.
52.1667 Absence of defects.
52.1668 Character.

LOT CERTIFICATION TOLERANCES

52.1669 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1670 Score sheet for frozen field peas and frozen black-eye peas.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CUCUMBER PICKLES

PRODUCT DESCRIPTION, STYLES, GRADES, AND TYPES

52.1681 Product description.
52.1682 Styles of cucumber pickles.
52.1683 Grades of cucumber pickles.
52.1684 Types of cucumber pickles.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.1685 Recommended fill of container.
52.1686 Recommended minimum drained weight.

SIZES

52.1687 Sizes of cucumber pickles in whole cucumber pickles.
52.1688 Sizes of cross cut or sliced cucumber pickles.

FACTORS OF QUALITY

52.1689 Ascertaining the grade.
52.1690 Ascertaining the rating of each factor.
52.1691 Color.
52.1692 Uniformity of size and shape.
52.1693 Absence of defects.
52.1694 Texture.

LOT CERTIFICATION TOLERANCES

52.1695 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1696 Score sheet for cucumber pickles.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PINEAPPLE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1711 Product description.
52.1712 Styles of canned pineapple.
52.1713 Grades of canned pineaple.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

52.1714 Recommended designations of liquid media and Brix measurements.
52.1715 Recommended fill of container.
52.1716 Recommended minimum drained weight.

COUNTS AND SIZES

52.1717 Recommended count and size of slices and half slices.

FACTORS OF QUALITY

52.1718 Ascertaining the grade.

Sec.
52.1719 Ascertaining the rating for each factor.
52.1720 Color.
52.1721 Uniformity of size and shape.
52.1722 Absence of defects.
52.1723 Character.

LOT CERTIFICATION TOLERANCES

52.1724 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1725 Score sheet for canned pineapple.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN PINEAPPLE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1741 Product description.
52.1742 Styles of frozen pineapple.
52.1743 Grades of frozen pineapple.

FACTORS OF QUALITY

52.1744 Ascertaining the grade.
52.1745 Ascertaining the rating of each factor.
52.1746 Color.
52.1747 Uniformity of size and symmetry.
52.1748 Absence of defects.
52.1749 Character.

LOT CERTIFICATION TOLERANCES

52.1750 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1751 Score sheet for frozen pineapple.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PINEAPPLE JUICE

PRODUCT DESCRIPTION AND GRADES

52.1761 Product description.
52.1762 Grades of canned pineapple juice.

FILL OF CONTAINER

52.1763 Recommended fill of container.

FACTORS OF QUALITY

52.1764 Ascertaining the grade.
52.1765 Ascertaining the rating of each factor.
52.1766 Color.
52.1767 Absence of defects.
52.1768 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.1769 Explanation of terms and analyses.

LOT CERTIFICATION TOLERANCES

52.1770 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1771 Score sheet for canned pineapple juice.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PLUMS

PRODUCT DESCRIPTION, VARIETIES, STYLES, AND GRADES

52.1781 Product description.
52.1782 Varieties of canned plums.
52.1783 Styles of canned plums.
52.1784 Grades of canned plums.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

52.1785 Recommended designations of liquid media and Brix measurements for canned plums.
52.1786 Recommended fill of container for canned plums.
52.1787 Recommended minimum drained weight.
52.1788 Compliance with recommended drained weights.

FACTORS OF QUALITY

52.1789 Ascertaining the grade.

Sec.
52.1790 Ascertaining the rating for the factors which are scored.
52.1791 Color.
52.1792 Uniformity of size.
52.1793 Absence of defects.
52.1794 Character.

LOT CERTIFICATION TOLERANCES

52.1795 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1796 Score sheet for canned plums.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED WHITE POTATOES

IDENTITY, STYLES, AND GRADES

52.1811 Identity.
52.1812 Styles of canned white potatoes.
52.1813 Grades of canned white potatoes.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.1814 Recommended fill of container.
52.1815 Recommended minimum drained weight.

SIZES

52.1816 Sizes of canned whole white potatoes.

FACTORS OF QUALITY

52.1817 Ascertaining the grade.
52.1818 Ascertaining the rating for each factor.
52.1819 Color.
52.1820 Uniformity of size and shape.
52.1821 Absence of defects.
52.1822 Texture.

LOT CERTIFICATION TOLERANCES

52.1823 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1824 Score sheet for canned white potatoes.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF PROCESSED RAISINS

PRODUCT DESCRIPTION, TYPES, SIZES, COLORS, AND GRADES

52.1841 Product description.
52.1842 Types (varieties) of processed raisins.
52.1843 Sizes of Thompson Seedless Raisins.
52.1844 Colors of Sulfur Bleached and Golden Bleached Thompson Seedless Raisins.
52.1845 Grades of Thompson Seedless Raisins.
52.1846 Sizes of Muscat Raisins.
52.1847 Grades of Muscat Raisins.
52.1848 Sizes of Sultana Raisins.
52.1849 Grades of Sultana Raisins.

EXPLANATIONS

52.1850 Explanation of terms.

WORK SHEET

52.1851 Work sheet for processed raisins.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN RASPBERRIES

PRODUCT DESCRIPTION, TYPES, AND GRADES

52.1871 Product description.
52.1872 Types (colors) of frozen raspberries.
52.1873 Grades of frozen raspberries (not for manufacturing).
52.1874 Grades of frozen raspberries for manufacturing.

FACTORS OF QUALITY

52.1875 Ascertaining the score and grade for frozen raspberries (not for manufacturing).
52.1876 Ascertaining the score of each factor for frozen raspberries (not for manufacturing).

Sec.
52.1877 Color.
52.1878 Absence of defects.
52.1879 Character.
52.1880 Determination of the grades of frozen raspberries for manufacturing.
52.1881 Ascertaining the rating of each factor for frozen raspberries for manufacturing.
52.1882 Color.
52.1883 Absence of defects.
52.1884 Character.

LOT CERTIFICATION TOLERANCES

52.1885 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.1886 Score sheet for frozen raspberries (not for manufacturing).

Subpart—United States Standards for Grades of Canned Spinach

IDENTITY AND GRADES

52.1901 Identity.
52.1902 Grades of canned spinach.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.1903 Recommended fill of container.
52.1904 Recommended drained weight.

FACTORS OF QUALITY

52.1905 Ascertaining the grade.
52.1906 Ascertaining the rating for each factor.
52.1907 Color.
52.1908 Absence of defects.
52.1909 Character.

LOT CERTIFICATION TOLERANCES

52.1910 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1911 Score sheet for canned spinach.

Subpart—United States Standards for Grades of Frozen Spinach

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1921 Product description.
52.1922 Styles of frozen spinach.
52.1923 Grades of frozen spinach.

FACTORS OF QUALITY

52.1924 Ascertaining the grade.
52.1925 Ascertaining the rating for the factors which are scored.
52.1926 Color.
52.1927 Absence of defects.
52.1928 Character.

LOT CERTIFICATION TOLERANCES

52.1929 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1930 Score sheet for frozen spinach.

Subpart—United States Standards for Grades of Frozen Cooked Squash

PRODUCT DESCRIPTION AND GRADES

52.1941 Product description.
52.1942 Grades of frozen cooked squash.

FACTORS OF QUALITY

52.1943 Ascertaining the grade.
52.1944 Ascertaining the ratings for the factors which are scored.
52.1945 Consistency.
52.1946 Color.
52.1947 Finish.
52.1948 Absence of defects.

LOT CERTIFICATION TOLERANCES

52.1949 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.1950 Score sheet for frozen cooked squash.

Subpart—United States Standards for Grades of Frozen Squash (Summer Type)

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.1961 Product description.
52.1962 Styles of frozen squash.
52.1963 Grades of frozen summer squash.

FACTORS OF QUALITY

52.1964 Ascertaining the grade.
52.1965 Ascertaining the ratings for the factors which are scored.
52.1966 Color.
52.1967 Absence of defects.
52.1968 Character.

LOT CERTIFICATION TOLERANCES

52.1969 Tolerance for certification of officially drawn samples.

SCORE SHEET

52.1970 Score sheet for frozen squash (summer type).

Subpart—United States Standards for Grades of Frozen Strawberries

PRODUCT DESCRIPTION, STYLES, SIZES, AND GRADES

52.1981 Product description.
52.1982 Styles of frozen strawberries.
52.1983 Sizes of whole strawberries.
52.1984 Grades of frozen strawberries (not for manufacturing).
52.1985 Grades of frozen strawberries for manufacturing.

FACTORS OF QUALITY

52.1986 Ascertaining the score and grade for frozen strawberries (not for manufacturing).
52.1987 Ascertaining the score of each factor for frozen strawberries (not for manufacturing).
52.1988 Color.
52.1989 Absence of defects.
52.1990 Character.
52.1991 Determination of the grades of frozen strawberries for manufacturing.
52.1992 Ascertaining the rating of each factor for frozen strawberries for manufacturing.
52.1993 Color.
52.1994 Absence of defects.
52.1995 Character.

LOT CERTIFICATION TOLERANCES

52.1996 Tolerance for certification of officially drawn samples.

SCORE AND WORK SHEETS

52.1997 Score sheet for frozen strawberries (not for manufacturing).
52.1998 Work sheet for frozen strawberries for manufacturing.

Subpart—United States Standards for Grades of Frozen Succotash

PRODUCT DESCRIPTION, INGREDIENTS, AND GRADES

52.2011 Product description.
52.2012 Kind, type, and style of ingredients.
52.2013 Proportion of ingredients.
52.2014 Grades of frozen succotash.

FACTORS OF QUALITY

52.2015 Ascertaining the grade.
52.2016 Ascertaining the rating for the factors which are scored.
52.2017 Color.
52.2018 Absence of defects.
52.2019 Tenderness.
52.2020 Method for determining proportion of ingredients.

LOT CERTIFICATION TOLERANCES

52.2021 Tolerances for certification of officially drawn samples.

SCORE SHEET

Sec.
52.2022 Score sheet for frozen succotash.

Subpart—United States Standards for Grades of Canned Sweetpotatoes

IDENTITY, COLORS, STYLES, TYPES, AND GRADES

52.2041 Identity.
52.2042 Colors of canned sweetpotatoes.
52.2043 Styles of canned sweetpotatoes.
52.2044 Types of packs of canned sweetpotatoes.
52.2045 Grades of canned sweetpotatoes.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

52.2046 Recommended designations of liquid media and Brix measurements.
52.2047 Recommended fill of container.
52.2048 Recommended minimum drained weight.

FACTORS OF QUALITY

52.2049 Ascertaining the grade.
52.2050 Ascertaining the rating for the factors which are scored.
52.2051 Color.
52.2052 Shape and size or consistency.
52.2053 Absence of defects.
52.2054 Character.

LOT CERTIFICATION TOLERANCES

52.2055 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2056 Score sheet for canned sweetpotatoes.

Subpart—United States Standards for Grades of Canned Tangerine Juice

PRODUCT DESCRIPTION AND GRADES

52.2071 Product description.
52.2072 Grades of canned tangerine juice.

FILL OF CONTAINER

52.2073 Recommended fill of container.

FACTORS OF QUALITY

52.2074 Ascertaining the grade.
52.2075 Ascertaining the rating of each factor.
52.2076 Color.
52.2077 Absence of defects.
52.2078 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.2079 Definitions of terms.
52.2080 Explanation of analyses.

LOT CERTIFICATION TOLERANCES

52.2081 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2082 Score sheet for canned tangerine juice.

Subpart—United States Standards for Grades of Tomato Catsup

IDENTITY AND GRADES

52.2101 Identity.
52.2102 Grades of tomato catsup.

FILL OF CONTAINER

52.2103 Recommended fill of container for tomato catsup.

FACTORS OF QUALITY

52.2104 Ascertaining the grade.
52.2105 Ascertaining the rating for the factors which are scored.
52.2106 Color.
52.2107 Consistency.
52.2108 Absence of defects.
52.2109 Flavor.

DEFINITIONS

52.2110 Definitions of terms used in these standards.

LOT CERTIFICATION TOLERANCES

Sec.
52.2111 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2112 Score sheet for tomato catsup.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN MIXED VEGETABLES

PRODUCT DESCRIPTION, KINDS, STYLES, PROPORTIONS, AND GRADES

52.2131 Product description.
52.2132 Kinds and styles of basic vegetables.
52.2133 Proportions of ingredients.
52.2134 Grades of frozen mixed vegetables.

FACTORS OF QUALITY

52.2135 Ascertaining the grade.
52.2136 Ascertaining the rating for the factors which are scored.
52.2137 Color.
52.2138 Absence of defects.
52.2139 Character.

EXPLANATIONS AND METHODS OF ANALYSES

52.2140 Explanation of terms and analyses.

LOT CERTIFICATION TOLERANCES

52.2141 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2142 Score sheet for frozen mixed vegetables.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED APPLES

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.2161 Product description.
52.2162 Styles of canned apples.
52.2163 Grades of canned apples.

FILL OF CONTAINER AND DRAINED WEIGHTS

52.2164 Recommended fill of container.
52.2165 Recommended minimum drained weights.

FACTORS OF QUALITY

52.2166 Ascertaining the grade.
52.2167 Ascertaining the rating for the factors which are scored.
52.2168 Color.
52.2169 Uniformity of size.
52.2170 Absence of defects.
52.2171 Character.

LOT CERTIFICATION TOLERANCES

52.2172 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2173 Score sheet for canned apples.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CHILI SAUCE

PRODUCT DESCRIPTION AND GRADES

52.2191 Product description.
52.2192 Grades of chili sauce.

FILL OF CONTAINER

52.2193 Recommended fill of container for chili sauce.

FACTORS OF QUALITY

52.2194 Ascertaining the grade.
52.2195 Ascertaining the rating for the factors which are scored.
52.2196 Color.
52.2197 Consistency.
52.2198 Character.
52.2199 Absence of defects.
52.2200 Flavor.

LOT CERTIFICATION TOLERANCES

52.2201 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2202 Score sheet for chili sauce.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CONCENTRATED ORANGE JUICE FOR MANUFACTURING

PRODUCT DESCRIPTION AND GRADES

Sec.
52.2221 Product description.
52.2222 Grades of concentrated orange juice for manufacturing.

FILL OF CONTAINER

52.2223 Recommended fill of container.

FACTORS OF QUALITY

52.2224 Ascertaining the grade.
52.2225 Ascertaining the rating for the factors which are scored.
52.2226 Color.
52.2227 Absence of defects.
52.2228 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.2229 Explanation of terms and analyses.

LOT CERTIFICATION TOLERANCES

52.2230 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2231 Score sheet for concentrated orange juice for manufacturing.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CONCENTRATED ORANGE JUICE

PRODUCT DESCRIPTION, STYLES, AND GRADES

52.2251 Product description.
52.2252 Styles of canned concentrated orange juice.
52.2253 Grades of canned concentrated orange juice.

FILL OF CONTAINER

52.2254 Recommended fill of container.

FACTORS OF QUALITY

52.2255 Ascertaining the grade.
52.2256 Ascertaining the rating for the factors which are scored.
52.2257 Color.
52.2258 Absence of defects.
52.2259 Flavor.

EXPLANATIONS AND METHODS OF ANALYSES

52.2260 Explanation of terms and analyses.

LOT CERTIFICATION TOLERANCES

52.2261 Tolerances for certification of officially drawn samples.

SCORE SHEET

52.2262 Score sheet for canned concentrated orange juice.

AUTHORITY: §§ 52.1 to 52.2262 issued under sec. 205, 60 Stat. 1090, Pub. Law 156, 83d Cong.; 7 U. S. C. 1624.

SUBPART—REGULATIONS GOVERNING INSPECTION AND CERTIFICATION

§ 52.1 *Administration of regulations.* The Administrator, Production and Marketing Administration, United States Department of Agriculture, is charged with the Administration of the regulations in this part except that he may delegate any or all of such functions to any officer or employee of the Production and Marketing Administration of the Department, in his discretion.

DEFINITIONS

§ 52.2 *Meaning of words.* Words in the regulations in this part in the singular form shall be deemed to import the plural and vice versa, as the case may demand.

§ 52.3 *Terms defined.* For the purpose of the regulations in this part, unless the context otherwise requires, the following terms shall have the following meanings:

(a) "Act" means the following provisions of the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621 et seq.) and of the Department of Agriculture Appropriation Act, 1951 (Pub. Law 759; 81st Cong., approved September 6, 1950, as continued in effect by Public Law 70; 82d Congress, approved July 1, 1951), or any future act of Congress conferring similar authority:

AGRICULTURAL MARKETING ACT OF 1946

* * * To inspect, certify, and identify the class, quality, quantity, and condition of agricultural products when shipped or received in interstate commerce, under such rules and regulations as the Secretary of Agriculture may prescribe, including assessment and collection of such fees as will be reasonable and as nearly as may be to cover the cost of the service rendered, to the end that agricultural products may be marketed to the best advantage, that trading may be facilitated, and that consumers may be able to obtain the quality product which they desire, except that no person shall be required to use the service authorized by this subsection. * * *

DEPARTMENT OF AGRICULTURE APPROPRIATION ACT, 1951

Market inspection of farm products. For the investigation and certification, in one or more jurisdictions, to shippers and other interested parties of the class, quality, and condition of any agricultural commodity or food product, whether raw, dried, canned, or otherwise processed, and any product containing an agricultural commodity or derivative thereof when offered for interstate shipment or when received at such important central markets as the Secretary may from time to time designate, or at points which may be conveniently reached therefrom under such rules and regulations as he may prescribe, including payment of such fees as will be reasonable and as nearly as may be to cover the cost for the services rendered. * * *

Marketing farm products. For acquiring and diffusing among the people of the United States useful information relative to the needed supplies, standardization, classification, grading, preparation for market, handling, transportation, storage, and marketing of farm and food products, including the demonstration and promotion of the use of uniform standards of classification of American farm and food products throughout the world * * *

(b) "Administrator" means the Administrator of the Production and Marketing Administration of the Department.

(c) "Applicant" means any interested party who requests inspection service under the regulations in this part.

(d) "Case" means the number of containers (cased or uncased) which, by the particular industry are ordinarily packed in a shipping container.

(e) "Certificate of loading" means a statement, either written or printed, issued pursuant to the regulations in this part, relative to checkloading of a processed product subsequent to inspection thereof.

(f) "Certificate of sampling" means a statement, either written or printed, issued pursuant to the regulations in this part, identifying officially drawn samples and may include a description of condition of containers and the condition under which the processed product is stored.

(g) "Class" means a grade or rank of quality.

(h) "Condition" means the degree of soundness of the product which may affect its merchantability and includes, but is not limited to those factors which are subject to change as a result of age, improper preparation and processing, improper packaging, improper storage or improper handling.

(i) "Department" means the United States Department of Agriculture.

(j) "Inspection certificate" means a statement, either written or printed, issued pursuant to the regulations in this part, setting forth in addition to appropriate descriptive information relative to a processed product, and the container thereof, the quality and condition, or any part thereof, of the product and may include a description of the conditions under which the product is stored.

(k) "Inspection service" means:

(1) The sampling pursuant to the regulations in this part;

(2) The determination pursuant to the regulations in this part of:

(i) Essential characteristics such as style, type, size, sirup density or identity of any processed product which differentiates between major groups of the same kind;

(ii) The class, quality and condition of any processed product, including the condition of the container thereof by the examination of appropriate samples;

(3) The issuance of any certificate of sampling, inspection certificates, or certificates of loading of a processed product, or any report relative to any of the foregoing; or

(4) Performance by an inspector of any related services such as assigning an inspector in a processing plant to observe the preparation of the product from its raw state through each step in the entire process, or observe conditions under which the product is being prepared, processed, and packed, or observe plant sanitation as a prerequisite to the inspection of the processed product, either on a continuous or periodic basis, or checkload the inspected processed product in connection with the marketing of the processed product.

(l) "Inspector" means any employee of the Department authorized by the Secretary or any other person licensed by the Secretary to investigate, sample, inspect, and certify in accordance with the regulations in this part to any interested party the class, quality and condition of processed products covered in this part and to perform related duties in connection with the inspection service.

(m) "Interested party" means any person who has a financial interest in the commodity involved.

(n) "Licensed sampler" means any person who is authorized by the Secretary to draw samples of processed products for inspection service, to inspect for condition of containers in a lot, and may, when authorized by the Administrator, perform related services under the act and the regulations in this part.

(o) "Lot" for the purpose of the regulations in this part means any number of containers of the same size and type containing a processed product of the same type or style offered for inspection by an interested party, except containers bearing an identification mark different from other containers and containing a lower grade quality than the containers bearing the other marks, may be considered as a separate lot.

(p) "Officially drawn sample" means any sample that has been selected from a particular lot by an inspector, licensed sampler, or by any other person authorized by the Administrator pursuant to the regulations in this part.

(q) "Person" means any individual, partnership, association, business trust, corporation, any organized group of persons (whether incorporated or not), the United States (including, but not limited to, any corporate agencies thereof), any State, county, or municipal government, any common carrier, and any authorized agent of any of the foregoing.

(r) "Plant" means the premises, buildings, structures, and equipment (including, but not being limited to, machines, utensils, and fixtures) employed or used with respect to the manufacture or production of processed products.

(s) "Processed product" means any fruit, vegetable, or other food product covered under these regulations which has been preserved by any recognized commercial process, including, but not limited to, canning, freezing, dehydrating, drying, the addition of chemical substances, or by fermentation.

(t) "Quality" means the inherent properties of any processed product which determine the relative degree of excellence of such product, and includes the effects of preparation and processing, and may or may not include the effects of packing media, or added ingredients.

(u) "Sample" means a single container, a single portion of a container, any number of containers, or a composite mixture of a single type, style or size of a single commodity, packed in a single size of container, or other unit, as may be designated by the Administrator, to be used for inspection.

(v) "Shipping container" means an individual container designed for shipping a number of packages or cans ordinarily packed in a container for shipping or designed for packing unpackaged processed products for shipping.

(w) "Sampling" means the act of selecting samples of processed products for the purpose of inspection under the regulations in this part.

(x) "Secretary" means the Secretary of the Department or any other officer or employee of the Department authorized to exercise the powers and to perform the duties of the Secretary in respect to the matters covered by the regulations in this part.

(y) "Unofficially drawn sample" means any sample that has been selected by any person other than an inspector or licensed sampler, or by any other person not authorized by the Administrator pursuant to the regulations in this part.

INSPECTION SERVICE

§ 52.4 *Where inspection service is offered.* Inspection service may be furnished wherever any inspector or licensed sampler is available and the facilities and conditions are satisfactory for the conduct of such service.

§ 52.5 *Who may obtain inspection service.* An application for inspection service may be made by any interested party, including, but not limited, to, the United States and any instrumentality or agency thereof, any State, county, municipality, or common carrier, and any authorized agent in behalf of the foregoing.

§ 52.6 *How to make application.* An application for inspection service may be made to the office of inspection or to any inspector, at or nearest the place where the service is desired; and an up-to-date list of the Standardization and Inspection Field Offices of the Department may be obtained upon request to the Administrator. Satisfactory proof that the applicant is an interested party, and satisfactory proof of the authority of any person applying for inspection service, shall be furnished.

§ 52.7 *Information required in connection with application.* Application for inspection service shall be made in the English language and may be made orally (in person or by telephone), in writing, or by telegraph. If an application for inspection service is made orally, such application shall be confirmed promptly in writing. In connection with each application for inspection service, there shall be furnished such information as may be necessary to perform an inspection on the processed product for which application for inspection is made, including but not limited to, the name of the product, name and address of the packer or plant where such product was packed, the location of the product, its lot or car number, codes or other identification marks, the number of containers, the type and size of the containers, the interest of the applicant in the product, whether the lot has been inspected previously to the application by any Federal agency and the purpose for which inspection is desired.

§ 52.8 *Filing of application.* An application for inspection service shall be regarded as filed only when made in accordance with the regulations in this part.

§ 52.9 *Record of filing time.* A record showing the date and hour when each application for inspection or for an appeal inspection is received shall be maintained.

§ 52.10 *When application may be rejected.* An application for inspection service may be rejected by the Administrator (a) for non-compliance by the applicant with the regulations in this part, (b) for non-payment for previous inspection services rendered, (c) when the product is not properly identifiable by code or other marks, or (d) when it appears that to perform the inspection service would not be to the best interests of the Government. Such applicant shall be promptly notified of the reason for such rejection.

§ 52.11 *When application may be withdrawn.* An application for inspection service may be withdrawn by the applicant at any time before the inspection is performed: *Provided*, That, the applicant shall pay at the hourly rate prescribed in § 52.48 for the time incurred by the inspector in connection with such application, any travel expenses, telephone, telegraph or other expenses which have been incurred by the inspection service in connection with such application.

§ 52.12 *Disposition of inspected sample.* Any sample of a processed product that has been used for inspection may be returned to the applicant, at his request and expense; otherwise it shall be destroyed, or disposed of to a charitable institution.

§ 52.13 *Basis of inspection.* Inspection service shall be performed on the basis of the appropriate U. S. Standards for grades of processed products, Federal, Quartermaster Corps, Military or Veterans Administration specifications, written buyer and seller contract specifications or any written specification supplied by an applicant which is approved by the Administrator.

§ 52.14 *Order of inspection service.* Inspection service shall be performed, insofar as practicable, in the order in which applications therefor are made except that precedence may be given to any such applications which are made by the United States (including, but not being limited to, any instrumentality or agency thereof) and to any application for an appeal inspection.

§ 52.15 *Postponing inspection service.* If the inspector determines that it is not possible to accurately ascertain the quality or condition of a processed product immediately after processing because the product has not reached equilibrium in color, sirup density, or drained weight, or for any other substantial reason, he may postpone inspection service for such period as may be necessary.

§ 52.16 *Financial interest of inspector.* No inspector shall inspect any processed product in which he is directly or indirectly financially interested.

§ 52.17 *Forms of certificates.* Inspection certificates, certificates of sampling or loading, and other memoranda concerning inspection service shall be issued on forms approved by the Administrator.

§ 52.18 *Issuance of certificates.* (a) An inspection certificate may be issued only by an inspector: *Provided*, That, another employee of the inspection service may sign any such certificate covering any processed product inspected by an inspector when given power of attorney by such inspector and authorized by the Administrator, to affix the inspector's signature to an inspection certificate which has been prepared in accordance with the facts set forth in the notes, made by the inspector, in connection with the inspection.

(b) A certificate of loading shall be issued and signed by the inspector or licensed sampler authorized to check the loading of a specific lot of processed products: *Provided*, That, another employee of the inspection service may sign such certificate of loading covering any processed product checkloaded by an inspector or licensed sampler when given power of attorney by such inspector or licensed sampler and authorized by the Administrator to affix the inspector's or licensed sampler's signature to a certificate of loading which has been prepared in accordance with the facts set forth in the notes made by the inspector or licensed sampler in connection with the checkloading of a specific lot of processed products.

§ 52.19 *Issuance of corrected certificates.* A corrected inspection certificate may be issued by the inspector who issued the original certificate after distribution of a certificate if errors, such as incorrect dates, code marks, grade statements, lot or car numbers, container sizes, net or drained weights, quantities, or errors in any other pertinent information require the issuance of a corrected certificate. Whenever a corrected certificate is issued, such certificate shall supersede the inspection certificate which was issued in error and the superseded certificate shall become null and void after the issuance of the corrected certificate.

§ 52.20 *Issuance of an inspection report in lieu of an inspection certificate.* A letter report in lieu of an inspection certificate may be issued by an inspector when such action appears to be more suitable than an inspection certificate: *Provided*, That, the issuance of such report is approved by the Administrator.

§ 52.21 *Disposition of inspection certificates.* The original of any inspection certificate, issued under the regulations in this part, and not to exceed four copies thereof, if requested prior to issuance, shall be delivered or mailed promptly to the applicant, or person designated by the applicant. All other copies shall be filed in such manner as the Administrator may designate. Additional copies of any such certificates may be supplied to any interested party as provided in § 52.50.

§ 52.22 *Report of inspection results prior to issuance of formal report.* Upon request of any interested party, the results of an inspection may be telegraphed or telephoned to him, or to any other person designated by him, at his expense.

APPEAL INSPECTION

§ 52.23 *When appeal inspection may be requested.* An application for an appeal inspection may be made by any interested party who is dissatisfied with the results of an inspection as stated in an inspection certificate, if the lot of processed products can be positively identified by the inspection service as the lot from which officially drawn samples were previously inspected. Such application shall be made within thirty (30) days following the day on which the previous inspection was performed, except upon approval by the Administrator the time within which an application for appeal inspection may be made may be extended.

§ 52.24 *Where to file for an appeal inspection and information required.* (a) Application for an appeal inspection may be filed with:

(1) The inspector who issued the inspection certificate on which the appeal covering the processed product is requested; or

(2) The inspector in charge of the office of inspection at or nearest the place where the processed product is located.

(b) The application for appeal inspection shall state the location of the lot of processed products and the reasons for the appeal; and date and serial number of the certificate covering inspection of the processed product on which the appeal is requested, and such application may be accompanied by a copy of the previous inspection certificate and any other information that may facilitate inspection. Such application may be made orally (in person or by telephone), in writing, or by telegraph. If made orally, written confirmation shall be made promptly.

§ 52.25 *When an application for an appeal inspection may be withdrawn.* An application for appeal inspection may be withdrawn by the applicant at any time before the appeal inspection is performed: *Provided*, That, the applicant shall pay at the hourly rate prescribed in § 52.48 of this part, for the time incurred by the inspector in connection with such application, any travel expenses, telephone, telegraph, or other expenses which have been incurred by the inspection service in connection with such application.

§ 52.26 *When appeal inspection may be refused.* An application for an appeal inspection may be refused if:

(a) The reasons for the appeal inspection are frivolous or not substantial;

(b) The quality or condition of the processed product has undergone a material change since the inspection covering the processed product on which the appeal inspection is requested;

(c) The lot in question is not, or cannot be made accessible for the selection of officially drawn samples;

(d) The lot relative to which appeal inspection is requested cannot be positively identified by the inspector as the lot from which officially drawn samples were previously inspected; or

(e) There is noncompliance with the regulations in this part. Such applicant shall be notified promptly of the reason for such refusal.

§ 52.27 *Who shall perform appeal inspection.* An appeal inspection shall be performed by an inspector or inspectors (other than the one from whose inspection the appeal is requested) authorized for this purpose by the Administrator and, whenever practical, such appeal inspection shall be conducted jointly by two such inspectors: *Provided*, That, the inspector who made the inspection on which the appeal is requested may be authorized to draw the samples when another inspector or licensed sampler is not available in the area where the product is located.

§ 52.28 *Appeal inspection certificate.* After an appeal inspection has been completed, an appeal inspection certificate shall be issued showing the results of such appeal inspection; and such certificate shall supersede the inspection certificate previously issued for the processed product involved. Each appeal inspection certificate shall clearly identify the number and date of the inspection certificate which it supersedes. The superseded certificate shall become null and void upon the issuance of the appeal inspection certificate and shall no longer represent the quality or condition of the processed product described therein. The inspector or inspectors issuing an appeal inspection certificate shall forward notice of such issuance to such persons as he considers necessary to prevent misuse of the superseded certificate if the original and all copies of such superseded certificate have not previously been delivered to the inspector or inspectors issuing the appeal inspection certificate. The provisions in the regulations in this part concerning forms of certificates, issuance of certificates, and disposition of certificates shall apply to appeal inspection certificates, except that copies of such appeal inspection certificates shall be furnished all interested parties who received copies of the superseded certificate.

LICENSING OF SAMPLERS AND INSPECTORS

§ 52.29 *Who may become licensed sampler.* Any person possessing qualifications as determined by an examination for competency, given by the Administrator, may be licensed as a licensed sampler to draw samples for the purpose of inspection under the regulations in this part. Such a license shall bear the printed signature of the Secretary and shall be countersigned by an authorized employee of the Department. Licensed samplers shall have no authority to inspect processed products under the regulations in this part except as to condition of the containers in a lot. A licensed sampler shall perform his duties pursuant to the regulations in this part as directed by the Administrator.

§ 52.30 *Application to become a licensed sampler.* Application to become a licensed sampler shall be made to the Administrator on forms furnished for that purpose. Each such application shall be executed and signed by the applicant in his own handwriting, and the information contained therein shall be verified by him under oath or affirmation administered by a notary public, and the application shall contain or be accompanied by:

(a) Satisfactory evidence that he has passed his twenty-first birthday;

(b) A statement showing his present and previous occupations, together with names of all employers for whom he has worked with periods of service during the last ten years previous to the date of his application;

(c) A statement that, in his capacity as a licensed sampler, he will not draw samples from any lot of processed products with respect to which he or his employer is an interested party;

(d) A statement by the applicant that he agrees to comply with all terms and conditions of the regulations in this part relating to duties of licensed samplers; and

(e) Such other information as may be required by the aforesaid Administrator.

§ 52.31 *Inspectors.* Inspections will ordinarily be performed by employees under the Administrator who are employed as Federal Government employees for that purpose. However, any person employed under any joint Federal-State inspection service arrangement may be licensed, if otherwise qualified, by the Secretary to make inspections in accordance with this part on such processed products as may be specified in his license. Such license shall be issued only in a case where the Administrator is satisfied that the particular person is qualified to perform adequately the inspection service for which such person is to be licensed. Each such license shall bear the printed signature of the Secretary and shall be countersigned by an authorized employee of the Department. An inspector shall perform his duties pursuant to the regulations in this part as directed by the Administrator.

§ 52.32 *Suspension or revocation of license of licensed sampler or licensed inspector.* Pending final action by the Secretary, the Administrator may, whenever he deems such action necessary, suspend the license of any licensed sampler, or licensed inspector, issued pursuant to the regulations in this part, by giving notice of such suspension to the respective licensee, accompanied by a statement of the reasons therefor. Within seven days after the receipt of the aforesaid notice and statement of reasons by such licensee, he may file an appeal, in writing, with the Secretary supported by any argument or evidence that he may wish to offer as to why his license should not be suspended or revoked. After the expiration of the aforesaid seven days period and consideration of such argument and evidence, the Secretary shall take such action as he deems appropriate with respect to such suspension or revocation.

§ 52.33 *Surrender of license.* Upon termination of his services as a licensed sampler or licensed inspector, or suspension or revocation of his license, such licensee shall surrender his license immediately to the office of inspection serving the area in which he is located. These same provisions shall apply in a case of an expired license.

SAMPLING

§ 52.34 *How samples are drawn by inspectors or licensed samplers.* An inspector or a licensed sampler shall select samples, upon request, from designated lots of processed products which are so placed as to permit thorough and proper sampling in accordance with the regulations in this part. Such person shall, unless otherwise directed by the Administrator, select samples of such products at random, and from various locations in each lot in such manner and number, not inconsistent with the regulations in this part, as to secure representative samples of the lot. Samples drawn for inspection shall be furnished by the applicant at no cost to the Department.

§ 52.35 *Accessibility for sampling.* Each applicant shall cause the processed products for which inspection is requested to be made accessible for proper sampling. Failure to make any lot accessible for proper sampling shall be sufficient cause for postponing inspection service until such time as such lot is made accessible for proper sampling.

§ 52.36 *How officially drawn samples are to be identified.* Officially drawn samples shall be marked by the inspector or licensed sampler so such samples can be properly identified for inspection.

§ 52.37 *How samples are to be shipped.* Unless otherwise directed by the Administrator, samples which are to be shipped to any office of inspection shall be forwarded to the office of inspection serving the area in which the processed products from which the samples were drawn is located. Such samples shall be shipped in a manner to avoid, if possible, any material change in the quality or condition of the sample of the processed product. All transportation charges in connection with such shipments of samples shall be at the expense of the applicant and wherever practicable, such charges shall be prepaid by him.

§ 52.38 *Sampling rates for officially drawn samples.* Unless otherwise directed by the Administrator, each inspector and each licensed sampler shall select from each lot not less than the number of samples indicated in the following applicable tables except as may be required otherwise by the provisions in § 52.34.

TABLE I—CANNED FRUITS AND VEGETABLES AND CANNED FRUIT AND VEGETABLE PRODUCTS, INCLUDING TOMATO PRODUCTS, AND SUCH PRODUCTS AS PEANUT BUTTER, PICKLES, RELISHES, MARMALADES, HONEY, MAPLE SIRUP, FRUIT PULPS AND JAMS, EXCEPT SINGLE-STRENGTH AND CONCENTRATED CITRUS JUICES AND GRAPE JUICES AND FRUIT JELLIES AND VINEGAR

Size and type of container	Rate of sampling[1]		
	From lots containing 1 to 2,000 cases	From lots containing 2,001 to 5,000	From lots exceeding 5,000 cases
Any type of container of less volume than a No. 300 size can (300 x 407).	1 container for each 4,000 containers or fraction thereof.	1 container for each 4,800 containers or fraction thereof.	1 container for each 6,000 containers or fraction thereof.
Any type of container of a volume equal to that of a No. 300 size can (300 x 407) or greater but not exceeding that of a No. 3 cylinder size can (404 x 700).	1 container for each 2,000 containers or fraction thereof.	1 container for each 2,400 containers or fraction thereof.	1 container for each 3,000 containers or fraction thereof.
Any type of container of a volume exceeding that of a No. 3 cylinder size can (404 x 700) but not exceeding that of a No. 12 size can (603 x 812).	1 container for each 1,000 containers or fraction thereof.	1 container for each 1,200 containers or fraction thereof.	1 container for each 1,500 containers or fraction thereof.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE I—CANNED FRUITS AND VEGETABLES AND CANNED FRUIT AND VEGETABLE PRODUCTS, INCLUDING TOMATO PRODUCTS, AND SUCH PRODUCTS AS PEANUT BUTTER, PICKLES, RELISHES, MARMALADES, HONEY, MAPLE SIRUP, FRUIT PULPS AND JAMS, EXCEPT SINGLE-STRENGTH AND CONCENTRATED CITRUS JUICES AND GRAPE JUICES AND FRUIT JELLIES AND VINEGAR—Continued

Size and type of container	Rate of sampling [1]		
	From lots containing 200 containers or less	From lots containing 201 to 500 containers	From lots exceeding 500 containers
Any type of container of a volume exceeding that of a No. 12 size can (603 x 812) but not containing more than 60 pounds of the product.	1 approximate 8-ounce sample from each of 4 percent of the containers.	1 approximate 8-ounce sample from each of 3 percent of the containers.	1 approximate 8-ounce sample from each of 2 percent of the containers.
	From lots containing 100 containers or less	From lots containing 101 to 200 containers	From lots exceeding 200 containers
Any type of container containing more than 60 pounds of the product.	1 approximate 32-ounce sample from each of 10 percent of the containers.	1 approximate 32-ounce sample from each of 7 percent of the containers.	1 approximate 32-ounce sample from each of 5 percent of the containers.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE II—CANNED AND FROZEN, SINGLE-STRENGTH CITRUS JUICES AND GRAPE JUICES; AND FRUIT JELLIES AND VINEGAR

Size and type of container	Rate of sampling [1]		
	From lots containing 1 to 2,000 cases	From lots containing 2,001 to 5,000	From lots exceeding 5,000 cases
Any type of container of a total volume of 11 fluid ounces or less.	1 container for each 4,800 containers or fraction thereof.	1 container for each 6,000 containers or fraction thereof.	1 container for each 8,000 containers or fraction thereof.
Any type of container of a total volume of more than 11 fluid ounces but not more than 52 fluid ounces.	1 container for each 2,400 containers or fraction thereof.	1 container for each 3,000 containers or fraction thereof.	1 container for each 4,000 containers or fraction thereof.
Any type of container of a total volume of more than 52 fluid ounces.	1 container for each 1,200 containers or fraction thereof.	1 container for each 1,500 containers or fraction thereof.	1 container for each 2,000 containers or fraction thereof.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE III—FROZEN FRUITS AND VEGETABLES AND FROZEN FRUIT AND VEGETABLE PRODUCTS, EXCEPT FROZEN SINGLE-STRENGTH AND CONCENTRATED CITRUS JUICES AND GRAPE JUICES

Size and type of container	Rate of sampling [1]
Any type of container of 1 pound or less net weight.	1 container for each 2,400 containers or fraction thereof.
Any type of container over 1 pound but less than 4 pounds, net weight.	1 container for each 1,600 containers or fraction thereof.
Any type of container of 4 pounds or more, but less than 10 pounds, net weight.	1 container for each 1,200 containers or fraction thereof.
Frozen vegetables only: Any type of container of 10 pounds or more, net weight.	One 2-pound sample (approximate weight) for each 3,000 pounds of the first 18,000 pounds, plus 1 additional 2-pound sample for each additional 5,000 pounds, or fraction thereof in excess of 18,000 pounds.
Frozen fruits and berries only: Any type of container of 10 pounds or more net weight.	One 3-pound sample (approximate weight) for each 3,000 pounds of the first 18,000 pounds, plus 1 additional 3-pound sample for each additional 5,000 pounds or fraction thereof, in excess of 18,000 pounds. When determined by the inspector that 3-pound sub-samples do not reflect the quality of the product in the container 1 or more entire containers may be substituted for any 1 or more sub-samples.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE IV—FROZEN AND CANNED CONCENTRATED CITRUS JUICES AND GRAPE JUICES

Size and type of container	Rate of sampling [1]		
	From lots containing 1 to 2,000 cases	From lots containing 2,001 to 5,000 cases	From lots exceeding 5,000 cases
Any type of container of a total volume of 11 fluid ounces or less.	1 container for each 6,000 containers or fraction thereof.	1 container for each 8,000 containers or fraction thereof.	1 container for each 12,000 containers or fraction thereof.
Any type of container of a total volume of more than 11 fluid ounces but not more than 52 fluid ounces.	1 container for each 3,000 containers or fraction thereof.	1 container for each 4,000 containers or fraction thereof.	1 container for each 6,000 containers or fraction thereof.
Any type of container of a volume of more than 52 fluid ounces.	1 container for each 1,500 containers or fraction thereof.	1 container for each 2,000 containers or fraction thereof	1 container for each 3,000 containers or fraction thereof.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE V—DRIED FRUIT

Number of pounds in lot	Shipping container sizes		
	Less than 20 pounds net weight	20 pounds to and including 30 pounds net weight	Exceeding 30 pounds but not exceeding 50 pounds net weight
	Rate of sampling [1]		
	Approximately 8 ounce samples	Approximately 16 ounce samples	Approximately 16 ounce samples
500 pounds or less	(2)	(2)	(2)
501 to 2,000 pounds	8	4	4
2,001 to 4,000 pounds	9	5	4
4,001 to 6,000 pounds	10	6	5
		Approximately 8 ounce samples	
6,001 to 8,000 pounds	11	7	5
8,001 to 10,000 pounds	12	8	6
10,001 to 12,000 pounds	14	9	6
12,001 to 14,000 pounds	16	10	7
Over 14,000 pounds	Each additional 1,500 pounds or fraction thereof. 1 approximately 8 ounce sample.	Each additional 2,000 pounds or fraction thereof. 1 approximately 8 ounce sample.	Each additional 3,000 pounds or fraction thereof. 1 approximately 16 ounce sample.

[1] In no case, shall the total of all the samples drawn yield less than 25 ounces of dates; 100 figs or 200 fig slices; or 56 ounces of other dried fruit. The size of the sample from an individual container may be increased to establish the quality of the fruit in the container.

[2] When lot consists of 500 pounds or less, draw 4 approximately equal samples, except that when the lot consists of less than 4 shipping containers, a sample shall be drawn from each shipping container.

TABLE VI—DEHYDRATED FRUITS AND VEGETABLES

Size and type of container	Rate of sampling [1]
Any type of container of 5 pounds or less net weight	1 container for each 2,400 containers or fraction thereof.
Any type of container in excess of 5 pounds, net weight	One 20 ounce (approximate weight) sample for each 4,000 pounds or fraction thereof.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

TABLE VII—PROCESSED PRODUCTS NOT SPECIFICALLY LISTED IN ANY TABLE CONTAINED IN THIS SECTION

Size and type of container	Rate of sampling [1]
Any type of container irrespective of its size or volume capacity.	At a rate that will represent the lot as may be determined by the inspector.

[1] These are minimum rates and in no case where lots consist of more than 1 container shall less than 2 samples be drawn from any 1 lot.

§ 52.39 *Issuance of certificate of sampling.* Each inspector and each licensed sampler shall prepare and sign a certificate of sampling to cover the samples drawn by the respective person, except that an inspector who inspects the samples which he has drawn need not prepare a certificate of sampling. One copy of each certificate of sampling prepared shall be retained by the inspector or licensed sampler (as the case may be) and the original and all other copies thereof shall be disposed of in accordance with the instructions of the Administrator.

§ 52.40 *Identification of lots sampled.* Each lot from which officially drawn samples are selected shall be marked in such manner as may be prescribed by the Administrator, if such lots do not otherwise possess suitable identification.

FEES AND CHARGES

§ 52.41 *Payment of fees and charges.* Fees and charges for any inspection service shall be paid by the interested party making the application for such service, in accordance with the applicable provisions of the regulations in this part, and, if so required by the person in charge of the office of inspection serving the area where the services are to be performed, and advance of funds prior to rendering inspection service in an amount suitable to the Administrator, or a surety bond suitable to the Administrator, may be required as a guarantee of payment for the services rendered. All fees and charges for any inspection service performed pursuant to the regulations in this part shall be paid by check, draft, or money order payable to the Treasurer of the United States and remitted to the office of inspection serving the area in which the services are performed, within ten (10) days from the date of billing, unless otherwise specified in a contract between the applicant and the Administrator, in which latter event the contract provisions shall apply.

§ 52.42 *Schedule of fees.* (a) Unless otherwise provided for in a written agreement between the applicant and the Administrator, the fees to be charged and collected for any inspection service performed under the regulations in this part at the request of the United States, or any agency or instrumentality thereof, shall be at the rate of $3.60 per hour.

(b) Unless otherwise provided in the regulations in this part, the fees to be charged and collected for any inspection service performed under the regulations in this part shall be based on the applicable rates specified in this section as follows:[1]

(1) *Canned fruits and vegetables and canned fruit and vegetable products and other canned processed products, such as peanut butter, pickles, relishes, jams, jellies, marmalades, honey, maple sirup and concentrates.*

OFFICIALLY DRAWN SAMPLES

Each lot when packed 6 or more cans per case but not exceeding 48 cans per case except canned pineapple and canned pineapple juice inspected in Puerto Rico:[1]

Minimum fee for 600 cases or less	$6.00
For each additional 200 cases, or fraction thereof, in excess of 600 cases	1.60

Each lot of canned pineapple and canned pineapple juice inspected in Puerto Rico:

The fee for each case of 24 containers or less	$0.015
The fee for each case of more than 24 containers	.020
Minimum fee for any lot	6.00

[1] Inspection of large quantities except canned pineapple and canned pineapple juice inspected in Puerto Rico: When application is made for inspection of 20,000 cases or more of a single commodity of canned fruits and vegetables and canned fruit and vegetable products in containers of any type of a volume capacity not exceeding that of a No. 12 size (603 x 812) the fee shall be at the rate of $1.40 for each 200 cases or fraction thereof: *Provided,* That, the commodity is available for inspection at any one place at any one time.

UNOFFICIALLY DRAWN SAMPLES

Minimum fee	$3.60
For more than 4 containers of any type of a volume not in excess of that of a No. 3 size can (404 x 414), per container	.75
For more than 2 containers of any type of a volume exceeding that of a No. 3 size can (404 x 414), but not exceeding that of a No. 12 size can (603 x 812), per container	1.50

(2) *Frozen fruits and vegetables and frozen fruit and vegetable products.*

OFFICIALLY DRAWN SAMPLES

Each lot other than when inspected in Puerto Rico:

Minimum fee for 10,000 pounds or less	$6.00
For each additional 5,000 pounds, or fraction thereof, in excess of 10,000 pounds	2.00

Each lot inspected in Puerto Rico:

Minimum fee for 10,000 pounds or less	7.20
For each additional 5,000 pounds, or fraction thereof, in excess of 10,000 pounds	2.40

UNOFFICIALLY DRAWN SAMPLES

Minimum fee	$3.60
For more than 2 samples of any type or weight, per sample	1.50

(3) *Dried fruits other than figs and dates.*

OFFICIALLY DRAWN SAMPLES

Each lot:

Minimum fee for 12,000 pounds or less	$6.00
For each additional 2,000 pounds, or fraction thereof, in excess of 12,000 pounds	.50

UNOFFICIALLY DRAWN SAMPLES

Each sample	$3.60

(4) *Dried figs and dates.*

OFFICIALLY DRAWN SAMPLES

Each lot:

Minimum fee for 8,000 pounds or less	$6.00
For each additional 2,000 pounds, or fraction thereof, in excess of 8,000 pounds	1.50

UNOFFICIALLY DRAWN SAMPLES

Each sample	$3.60

(5) *Other processed products.* The fee to be charged and collected for the inspection of any processed product not included in subparagraphs (1), (2), (3) and (4) of this paragraph shall be at the rate of $3.60 per hour for the time consumed by the inspector in making the inspection, including the time consumed in sampling by the inspector or licensed sampler: *Provided, however,* That fees for sampling time will not be assessed by the office of inspection when such fees have been assessed and collected directly from the applicant by a licensed sampler.

§ 52.43 *Fees to be charged and collected for sampling when performed by a licensed sampler.* Such sampling fees as are specifically prescribed by the Administrator in connection with the licensing of the particular sampler (which fees are to be prescribed in the light of the sampling work to be performed by such sampler and other pertinent factors) may be assessed and collected by such licensed sampler directly from the applicant: *Provided,* That, if such licensed sampler is an employee of a State, the appropriate authority of that State may make the collection, or they may be assessed and collected by the office of inspection serving the area where the services are performed.

§ 52.44 *Inspection fees when charges for sampling have been collected by a licensed sampler.* For each lot of processed products from which samples have been drawn by a licensed sampler and with respect to which the sampling fee has been collected by the licensed sampler, the fee to be charged for the inspection shall be 75 percent of the fee provided in this part applicable to the respective processed product: *Provided,* That, if the fee charged for the inspection service is based on the hourly rate of charge, the fee shall be at the rate of $3.60 per hour prescribed in this part.

§ 52.45 *Inspection fees when charges for sampling have not been collected by a licensed sampler.* For each lot of processed products from which samples have been drawn by a licensed sampler, and with respect to which the sampling fee has not been collected by the licensed sampler, the fee to be charged for the inspection shall be 75 percent of the fee as prescribed in this part, plus a reasonable charge to cover the cost of sampling as may be determined by the Administrator: *Provided,* That, if the fee charged is based on the hourly rate, the fee shall be at the rate of $3.60 per hour prescribed in this part, plus a reasonable charge to cover the cost of sampling, as determined by the Administrator.

§ 52.46 *Fee for appeal inspection.* The fee to be charged for an appeal inspection shall be at the rates prescribed in this part for other inspection services: *Provided,* That, if the result of any appeal inspection made for any applicant, other than the United States or any agency or instrumentality thereof, discloses that a material error was made in the inspection on which the appeal is made, no inspection fee shall be assessed.

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[1] The fees specified in this section are exclusive of charges for such micro, chemical and certain other special analyses, other than salt, acid, catalase, peroxidase, soluble solids (by refrac.) or total solids (by refrac.), which may be requested by the applicant or required by the inspector to determine the quality or condition of the processed product.

§ 52.47 *Charges for micro, chemical and certain other special analyses.* (a) The following charges shall be made for micro, chemical and certain other special analyses which may be requested by the applicant or required by the inspector to determine the quality or condition of the processed product:[2]

Type of analysis	For first analysis	For each additional analysis
Micro, chemical, and certain other special analyses		
Mold count	$1.50	$1.50
Worm larvae and insect fragment count	3.00	3.00
Fly egg and maggot count	3.00	3.00
Alcohol insoluble solids	3.00	2.00
Alcohol	2.00	2.00
Ascorbic acid (vitamin C)	6.00	2.00
Ash	2.00	2.00
Ash, salt free	4.00	4.00
Ash, acid insoluble	4.00	4.00
Ash, water insoluble	4.00	4.00
Crude fiber	10.00	5.00
Ether extract (crude fat)	5.00	5.00
Fiber, green and wax bean	3.00	2.00
Iodine number	8.00	8.00
Moisture (air oven method)	2.00	2.00
Moisture (vacuum oven method)	2.00	2.00
Nitrogen	3.00	2.00
Non-volatile ether extract	6.00	6.00
Oil of lemon and orange extract (precipitation method)	3.00	3.00
Oil of lemon extract with oil base (distillation method)	4.00	4.00
Phosphorus pentoxide (P_2O_5)	8.00	8.00
Phosphorus pentoxide (P_2O_5) and aluminum trioxide (Al_2O_3)	15.00	15.00
Recoverable oil	2.00	2.00
Reducing sugars	6.00	6.00
Starch or carbohydrates (direct hydrolysis)	12.00	10.00
Carbohydrates (by difference)	12.00	10.00
Sulphur dioxide (direct titration)	3.00	1.00
Total solids (by drying)	3.00	2.00
Vanillin and coumarin	10.00	10.00
Volatile and non-volatile ether extract	8.00	8.00
Water extract	4.00	4.00
Water insoluble, inorganic residue examination for adulteration, and particle count	8.50	6.00

(b) The following charges shall be made for analyses which are requested by an applicant and are not in connection with an inspection to determine the quality or condition of the product:[3]

Type of analysis	For first analysis	For each additional analysis
Catalase	$2.40	$1.20
Peroxidase	2.40	1.20
Titrations: citric, lactic, acetic, or fatty acids, sodium chloride	1.20	1.20
Soluble solids (by refrac.)	2.40	1.20
Total solids (by refrac.)	2.40	1.20

§ 52.48 *When charges are to be based on hourly rate not otherwise provided for in this part.* When inspection is for condition only or when inspection services or related services are rendered and formal certificates are not issued or when the services rendered are such that charges based upon the foregoing sections would be inadequate or inequitable, charges may be based on the time consumed by the inspector in performance of such inspection service at the rate of $3.60 per hour.

§ 52.49 *Fees for score sheets.* If the applicant for inspection service requests score sheets showing in detail the inspection of each container or sample inspected and listed thereon, such score sheets may be furnished by the inspector in charge of the office of inspection serving the area where the inspection was performed; and such applicant shall be charged at the rate of $1.00 for each twelve samples, or fraction thereof, inspected and listed on such score sheets.

§ 52.50 *Fees for additional copies of inspection certificates.* Additional copies of any inspection certificate other than those provided for in § 52.21, may be supplied to any interested party upon payment of a fee of $1.50 for each set of five (5) or fewer copies.

§ 52.51 *Travel and other expenses.* Charges may be made to cover cost of travel and other expenses incurred by the inspection service in connection with the performance of any inspection service, including travel and other expenses incurred in connection with any appeal inspection.

§ 52.52 *Charges for inspection service on a contract basis.* Irrespective of fees and charges prescribed in foregoing sections, the Administrator may enter into contracts with applicants to perform continuous inspection services or other inspection services pursuant to the regulations in this part and other requirements as prescribed by the Administrator in such contract, and the charges for such inspection service provided in such contracts shall be on such basis as will reimburse the Production and Marketing Administration of the Department for the full cost of rendering such inspection service including an appropriate overhead charge to cover as nearly as practicable administrative overhead expenses as may be determined by the Administrator.

MISCELLANEOUS

§ 52.53 *Fraud or misrepresentation.* Any wilful misrepresentation or any deceptive or fraudulent practice found to be made or committed by any person in connection with:

(a) The making or filing of an application for any inspection service;

(b) The submission of samples for inspection;

(c) The use of any inspection report or any inspection certificate, or appeal inspection certificate issued under the regulations in this part;

(d) The use of the words "Packed under continuous inspection of the U. S. Department of Agriculture," any legend signifying that the product has been officially inspected, any statement of grade or words of similar import in the labeling or advertising of any processed product;

(e) The use of a facsimile form which simulates in whole or in part any official U. S. certificate for the purpose of purporting to evidence the U. S. grade of any processed product; or

(f) Any wilful violation of the regulations in this part or supplementary rules or instructions issued by the Administrator, may be deemed sufficient cause for debarring such person from any or all benefits of the act.

§ 52.54 *Political activity.* All inspectors and licensed samplers are forbidden, during the period of their respective appointments or licenses, to take an active part in political management or in political campaigns. Political activities in city, county, State, or national elections, whether primary or regular, or in behalf of any party or candidate, or any measure to be voted upon, are prohibited. This applies to all appointees or licensees, including, but not limited to, temporary and cooperative employees and employees on leave of absence with or without pay. Wilful violation of this section will constitute grounds for dismissal in the case of appointees and revocation of licenses in the case of licensees.

§ 52.55 *Interfering with an inspector or licensed sampler.* Any further benefits of the act may be denied any applicant or other interested party who either personally or through an agent or representative interferes with or obstructs, by intimidation, threats, assault, or in any other manner, an inspector or licensed sampler in the performance of his duties.

§ 52.56 *Compliance with other laws.* None of the requirements in the regulations in this part shall excuse failure to comply with any Federal, State, county, or municipal laws applicable to the operation of food processing establishments and to processed food products.

§ 52.57 *Identification.* Each inspector and licensed sampler shall have in his possession at all times and present upon request, while on duty, the means of identification furnished by the Department to such person.

REQUIREMENTS FOR PLANTS OPERATING UNDER CONTINUOUS INSPECTION ON A CONTRACT BASES[4]

§ 52.81 *Plant survey.* (a) Prior to the inauguration of continuous inspection service on a contract basis, the Administrator will make, or cause to be made, a survey and inspection of the plant where such service is to be performed to determine whether the plant and methods of operation are suitable and adequate for the performance of such services in accordance with:

(1) The regulations in this part, including, but not limited to, the requirements contained in §§ 52.81 through 52.87; and

(2) The terms and provisions of the contract pursuant to which the service is to be performed.

§ 52.82 *Premises.* The premises of the plant shall be free from conditions objectionable to food processing operations; and such conditions include, but are not limited to, the following:

(a) Strong offensive odors;

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[2] When any of these analyses are made at the request of an appplicant and are not in connection with an inspection to determine the quality or condition of the product, the listed fees shall be increased by 20%.

[3] When these analyses are made in connection with an inspection to determine the quality or condition of the product no fee shall be charged for the analyses.

[4] Compliance with the above requirements does not excuse failure to comply with all applicable sanitary rules and regulations of city, county, State, Federal, or other agencies having jurisdiction over such plants and operations.

(b) Litter, waste, and refuse (e. g., garbage, viner refuse, and damaged containers) within the immediate vicinity of the plant buildings or structures;

(c) Excessively dusty roads, yards, or parking lots; and

(d) Poorly drained areas.

§ 52.83 *Buildings and structures.* The plant buildings and structures shall be properly constructed and maintained in a sanitary condition, including, but not being limited to, the following requirements:

(a) There shall be sufficient light (1) consistent with the use to which the particular portion of the building is devoted and (2) to permit efficient cleaning. Belts and tables on which picking, sorting, or trimming operations are carried on shall be provided with sufficient nonglaring light to insure adequacy of the respective operation.

(b) If practicable, there shall be sufficient ventilation in each room and compartment thereof to prevent excessive condensation of moisture and to insure sanitary and suitable processing and operating conditions. If such ventilation does not prevent excessive condensation, the Administrator may require that suitable facilities be provided to prevent the condensate from coming in contact with equipment used in processing operations and with any ingredient used in the manufacture or production of a processed product.

(c) There shall be an efficient waste disposal and plumbing system. All drains and gutters shall be properly installed with approved traps and vents, and shall be maintained in good repair and in proper working order.

(d) There shall be ample supply of both hot and cold water; and the water shall be of safe and sanitary quality with adequate facilities for its (1) distribution throughout the plant, and (2) protection against contamination and pollution.

(e) Roofs shall be weather-tight. The walls, ceilings, partitions, posts, doors, and other parts of all buildings and structures shall be of such materials, construction, and finish as to permit their efficient and thorough cleaning. The floors shall be constructed of tile, cement, or other equally impervious material, shall have good surface drainage, and shall be free from openings or rough surfaces which would interfere with maintaining the floors in a clean condition.

(f) Each room and each compartment in which any processed products are handled, processed, or stored (1) shall be so designed and constructed as to insure processing and operating conditions of a clean and orderly character; (2) shall be free from objectionable odors and vapors; and (3) shall be maintained in a clean and sanitary condition.

(g) Every practical precaution shall be taken to exclude dogs, cats, and vermin (including, but not being limited to, rodents and insects) from the rooms in which processed products are being prepared or handled and from any rooms in which ingredients (including, but not being limited to, salt, sugar, spices, flour, syrup, and raw fruits and vegetables) are handled or stored. Screens, or other devices, adequate to prevent the passage of insects shall, where practical, be provided for all outside doors and openings. The use of poisonous cleansing agents, insecticides, bactericides, or rodent poisons shall not be permitted except under such precautions and restrictions as will prevent any possibility of their contamination of the processed product.

§ 52.84 *Facilities.* Each plant shall be equipped with adequate sanitary facilities and accommodations, including, but not being limited to, the following:

(a) There shall be a sufficient number of adequately lighted toilet rooms, ample in size, and conveniently located. Such rooms shall not open directly into rooms or compartments in which processed products are being manufactured or produced, or handled. Toilet rooms shall be adequately screened and equipped with self-closing doors and shall have independent outside ventilation.

(b) Lavatory accommodations (including, but not being limited to, running water, single service towels, and soap) shall be placed at such locations in or near toilet rooms and in the manufacturing or processing rooms or compartments as may be necessary to assure the cleanliness of each person handling ingredients used in the manufacture or production of processed products.

(c) Containers intended for use as containers for processed products shall not be used for any other purpose.

(d) No product or material which creates an objectionable condition shall be processed, handled, or stored in any room, compartment, or place where any processed product is manufactured, processed, or handled.

(e) Suitable facilities for cleaning (e. g., brooms, brushes, mops, clean cloths, hose, nozzles, soaps, detergent, sprayers, and steam pressure hose and guns) shall be provided at convenient locations throughout the plant.

§ 52.85 *Equipment.* All equipment used for receiving, washing, segregating, picking, processing, packaging, or storing any processed products or any ingredients used in the manufacture or production thereof, shall be of such design, material, and construction as will:

(a) Enable the examination, segregation, preparation, packaging and other processing operations applicable to processed products, in an efficient, clean, and sanitary manner, and

(b) Permit easy access to all parts to insure thorough cleaning and effective bactericidal treatment. Insofar as is practicable, all such equipment shall be made of corrosion-resistant material that will not adversely affect the processed product by chemical action or physical contact. Such equipment shall be kept in good repair and sanitary condition.

§ 52.86 *Operations and operating procedures.* (a) All operations in the receiving, transporting, holding, segregating, preparing, processing, packaging and storing of processed products and ingredients, used as aforesaid, shall be strictly in accord with clean and sanitary methods and shall be conducted as rapidly as practicable and at temperatures that will not tend to cause (1) any material increase in bacterial or other micro-organic content, or (2) any deterioration or contamination of such processed products or ingredients thereof. Mechanical adjustments or practices which may cause contamination of foods by oil, dust, paint, scale, fumes, grinding materials, decomposed food, filth, chemicals, or other foreign materials shall not be conducted during any manufacturing or processing operation.

(b) All processed products and ingredients thereof shall be subjected to continuous inspection throughout each manufacturing or processing operation. All processed products which are not manufactured or prepared in accordance with the requirements contained in §§ 52.81 through 52.87 or are not fit for human food shall be removed and segregated prior to any further processing operation.

(c) All ingredients used in the manufacture or processing of any processed product shall be clean and fit for human food.

(d) The methods and procedures employed in the receiving, segregating, handling, transporting, and processing of ingredients in the plant shall be adequate to result in a satisfactory processed product. Such methods and procedures include, but are not limited to, the following requirement:

(1) Containers, utensils, pans, and buckets used for the storage or transporting of partially processed food ingredients shall not be nested unless rewashed before each use;

(2) Containers which are used for holding partially processed food ingredients shall not be stacked in such manner as to permit contamination of the partially processed food ingredients;

(3) Packages or containers for processed products shall be clean when being filled with such products; and all reasonable precautions shall be taken to avoid soiling or contaminating the surface of any package or container liner which is, or will be, in direct contact with such products. If, to assure a satisfactory finished product, changes in methods and procedures are required by the Administrator, such changes shall be effectuated as soon as practicable.

§ 52.87 *Personnel; health.* In addition to such other requirements as may be prescribed by the Administrator with respect to persons in any room or compartment where exposed ingredients are prepared, processed, or otherwise handled, the following shall be complied with:

(a) No person affected with any communicable disease (including, but not being limited to, tuberculosis) in a transmissible stage shall be permitted;

(b) Infections or cuts shall be covered with rubber gloves or other suitable covering;

(c) Clean, suitable clothing shall be worn;

(d) Hands shall be washed immediately prior to starting work and each resumption of work after each absence from the work station;

(e) Spitting, and the use of tobacco are prohibited; and

(f) All necessary precautions shall be taken to prevent the contamination of processed products and ingredients thereof with any foreign substance (including, but not being limited to, perspiration, hair, cosmetics, and medicaments).

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED APPLE JUICE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.301 *Product description.* Canned apple juice is the unfermented liquid prepared from the first pressing juice of properly prepared sound, fresh apples, excluding the liquid obtained from any additional residual apple material. Such apple juice is prepared without any concentration, without dilution, or without the addition of sweetening ingredients; may be processed with or without the addition of antioxidants; and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers (either metal or glass).

§ 52.302 *Styles of canned apple juice.* (a) Style I, Clear (typical of "clarified" apple juice).

(b) Style II, Cloudy (typical of "non-clarified" apple juice, but not a crushed or disintegrated apple product).

§ 52.303 *Grades of canned apple juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned apple juice that possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned apple juice that possesses a good color; is fairly free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned apple juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.304 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with apple juice and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.305 *Ascertaining the grade.* (a) The grade of canned apple juice may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	*Points*
Color	20
Absence of defects	20
Flavor	60
Total score	100

§ 52.306 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.307 *Color*—(a) *(A) classification.* Canned apple juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the color is bright and typical of freshly pressed juice and may vary from characteristic light non-amber shades to medium amber shades; that the canned apple juice of Style I, Clear, is sparkling clear and transparent; and that canned apple juice of Style II, Cloudy, may range from a slight translucent appearance to a definitely hazy appearance.

(b) *(C) classification.* If the canned apple juice possesses a good color, a score of 14 to 16 points may be given. Canned apple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means that the color is typical of canned apple juice, which color may be deep amber or other typical color but is not off color for the respective style.

(c) *(SStd) classification.* Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.308 *Absence of defects.* The factor of absence of defects refers to the degree of freedom from sediment or other residue, dark specks, particles of seeds, coarse particles of pulp, or other defects.

(a) *(A) classification.* Canned apple juice that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that the canned apple juice may possess a slight amount of sediment or residue of an amorphous nature; may possess not more than a trace of dark specks or of sediment or residue of a non-amorphous nature; and shall be free from particles of seed, coarse particles of pulp, or other defects.

(b) *(C) classification.* If the canned apple juice is fairly free from defects, a score of 14 to 16 points may be given. Canned apple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned apple juice may possess a slight amount of sediment or residue of an amorphous or non-amorphous nature, of dark specks, of particles of seed, of coarse particles of pulp, or of any other defects, provided such defects do not seriously affect the appearance or palatability of the product.

(c) *(SStd) classification.* Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.309 *Flavor.* The factor of flavor refers to the degree of excellence and palatableness of a distinct apple juice flavor and aroma typical of apple juice that has been properly processed.

(a) *(A) classification.* Canned apple juice that possesses a very good flavor may be given a score of 51 to 60 points. "Very good flavor" means that the canned apple juice possesses a fine, distinct canned apple juice flavor and a typical fruity odor which may be slightly oxidized or slightly astringent but is free from any trace of scorching, of the flavor of overprocessing, of objectionable oxidation, of the flavor of green fruit, or of any other objectionable flavor or odor. To score in this classification canned apple juice shall meet the following additional requirements:

Brix. Not less than 11.5 degrees.

Acid. Not less than 0.35 gm. nor more than 0.70 gm., calculated as malic, per 100 ml. of juice.

(b) *(C) classification.* If the canned apple juice possesses a good flavor, a score of 42 to 50 points may be given. Canned apple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good flavor" means that the canned apple juice possesses a normal flavor and odor, typical of canned apple juice which may be more than slightly oxidized or may be more than slightly astringent but is free from objectionable odors or objectionable flavors of any kind. To score in this classification canned apple juice shall meet the following additional requirements:

Brix. Not less than 10.5 degrees.

Acid. Not less than 0.30 gm. nor more than 0.80 gm., calculated as malic, per 100 ml. of juice.

(c) *(SStd) classification.* Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 41 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND ANALYSES

§ 52.310 *Explanation of terms.* (a) "Brix" means the degrees Brix of canned apple juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If canned apple juice is tested at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned apple juice may be determined by any other method which gives equivalent results.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(b) "Acid" means grams of acid (calculated as malic acid) per 100 ml. of juice in canned apple juice determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator or any other satisfactory indicator.

LOT CERTIFICATION TOLERANCES

§ 52.311 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned apple juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.312 *Score sheet for canned apple juice.*

Size and kind of container			------
Container mark or identification			------
Label			------
Liquid measure (Fl. ounces)			------
Vacuum (in inches)			------
Brix (degrees)			------
Acid (malic: grams/100 ml.)			------
Factors	Score points		
Color	20	(A) 17-20 (C) [1]14-16 (D) [1]0-13	
Absence of defects	20	(A) 17-20 (C) [1]14-16 (D) [1]0-13	
Flavor	60	(A) 51-60 (C) [1]42-50 (D) [1]0-41	
Total score	100	------------	
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED APPLESAUCE [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.331 *Product description.* "Canned applesauce" is prepared from sound, fresh, apples (Pyrus malus) of proper ripeness, which fruit has been washed, peeled, cored, trimmed, sorted, chopped, and pulped; is packed with or without the addition of sweetening ingredients, water, salt, and spices; and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.332 *Grades of canned applesauce.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned applesauce that possesses a good color and a good flavor; and that is of such quality with respect to consistency, finish, and absence of defects, as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned applesauce that possesses a fairly good color, a fairly good flavor, a fairly good consistency, and a fairly good finish; that is fairly free from defects; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned applesauce that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.333 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned applesauce be filled as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.334 *Ascertaining the grade.* (a) The grade of canned applesauce is ascertained by considering, in conjunction with the other requirements of the respective grade, the respective ratings for the factors of color, consistency, finish, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors is:

Factors:	*Points*
Color	20
Consistency	20
Finish	20
Absence of defects	20
Flavor	20
Total score	100

§ 52.335 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.336 *Color*—(a) *(A) classification.* Canned applesauce that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the canned applesauce possesses a practically uniform, bright, typical color; is free from tinges of pink color, and is free from discoloration due to scorching, oxidation, or other causes.

(b) *(C) classification.* Canned applesauce that possesses a fairly good color may be given a score of 14 to 16 points. Canned applesauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned applesauce possesses a fairly uniform, typical color that may be dull, slightly brown, slightly gray, or slightly pink, but is not off color.

(c) *(SStd) classification.* Canned applesauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.337 *Consistency.* The factor of consistency refers to the viscosity of the product and to the degree of separation of free liquor.

(a) *(A) classification.* Canned applesauce that possesses a good consistency may be given a score of 17 to 20 points. "Good consistency" means that the canned applesauce, after stirring and emptying from the container to a dry flat surface, forms a moderately mounded mass, and that at the end of two minutes there is not more than a slight separation of free liquor.

(b) *(C) classification.* Canned applesauce that possesses a fairly good consistency may be given a score of 14 to 16 points. Canned applesauce that scores 15 points or less in this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a partial limiting rule). "Fairly good consistency" means that the canned applesauce, after stirring and emptying from the container to a dry flat surface, may be more than moderately mounded, may be moderately stiff but not excessively stiff, or may be slightly thin so that it levels itself and that at the end of two minutes there may be moderate but not excessive separation of free liquor.

(c) *(SStd) classification.* Canned applesauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.338 *Finish.* The factor of finish refers to the texture of the product and evenness of the apple particles.

(a) *(A) classification.* Canned applesauce that possesses a good finish may be given a score of 17 to 20 points. "Good finish" means that the apple particles are evenly divided; that the product is granular but not lumpy; is not pasty or "salvy"; and the apple particles are not hard.

(b) *(C) classification.* Canned applesauce that possesses a fairly good finish may be given a score of 14 to 16 points. Canned applesauce that scores 15 points or less in this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a partial limiting rule). "Fairly good finish" means that the apple particles are evenly divided; the product may lack granular characteristics; may be slightly pasty or slightly "salvy" but not decidedly pasty or decidedly "salvy"; and the apple particles are not hard.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) (*SStd*) *classification.* Canned applesauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.339 *Absence of defects.* The factor of absence of defects refers to the degree of freedom from particles of seeds, flecks of bruised apple particles, peel, carpel tissue, dark particles from the blossom end of apples, and from other objectionable particles.

(a) (*A*) *classification.* Canned applesauce that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that the number, size, and color of the aforesaid defects present do not materially affect the appearance or eating quality of the product.

(b) (*C*) *classification.* Canned applesauce that is fairly free from defects may be given a score of 14 to 16 points. Canned applesauce that scores 14 points in this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a partial limiting rule). "Fairly free from defects" means that the number, size and color of the aforesaid defects present do not seriously affect the appearance or eating quality of the product.

(c) (*SStd*) *classification.* Canned applesauce which fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.340 *Flavor.* Consideration is given under the factor of flavor to the natural flavor and aroma of the apple ingredient and the apparent relationship of acidity to sweetness.

(a) (*A*) *classification.* Canned applesauce that possesses a good flavor may be given a score of 17 to 20 points. "Good flavor" means that the product has a distinct, desirable, characteristic, normal flavor and odor, and is free from objectionable flavors and objectionable odors of any kind (including but not being limited to those caused by oxidation, fermentation, and caramelization). The canned applesauce shall test not less than 16.5 degrees Brix.

(b) (*C*) *classification.* Canned applesauce that possesses a fairly good flavor may be given a score of 14 to 16 points. Canned applesauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means that the product may be lacking in good flavor and odor; is practically free from the flavor of overripe fruit; and is free from objectionable flavors and objectionable odors (including but not being limited to those caused by oxidation, fermentation and serious caramelization).

(c) (*SStd*) *classification.* Canned applesauce which fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS

§ 52.341 *Definition of term used in these standards.* "Degrees Brix" in canned applesauce is the refractometric sucrose value of the filtrate determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions without correction for insoluble solids or acids.

LOT CERTIFICATION TOLERANCES

§ 52.342 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned applesauce, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.343 *Score sheet for canned applesauce.*

Size and kind of container			
Container mark or identification			
Label			
Net weight (ounces)			
Degrees Brix (by refractometer)			
Vacuum			
Factors	Score points		
Color	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Consistency	20	(A) 17-20 (C) [2] 14-16 (D) [1] 0-13	
Finish	20	(A) 17-20 (C) [2] 14-16 (D) [1] 0-13	
Absence of defects	20	(A) 17-20 (C) [2] 14-16 (D) 0-13	
Flavor	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Total score	100		
Grade			

[1] Indicates limiting rule.
[2] Indicates partial limiting rule,

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN APPLES [1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.361 *Product description.* Frozen apples are prepared from sound, properly ripened fruit of Malus sylvestris (Pyrus malus); are peeled, cored, trimmed, sliced, sorted, and washed; are properly drained before filling into containers; may be packed with or without the addition of a sweetening ingredient and are frozen and stored at temperatures necessary for the preservation of the product.

§ 52.362 *Styles of frozen apples.* (a) "Slices" means frozen apples consisting of slices of apples cut longitudinally and radially from the core.

(b) "Rings" means frozen apples consisting of slices cut transversely to the core.

§ 52.363 *Grades of frozen apples.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen apples that possess similar varietal characteristics; that possess a good flavor; that possess a good color; that are practically free from defects; that possess a good character; and are of such quality with respect to uniformity of size as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen apples that possess similar varietal characteristics; that possess reasonably good flavor; that possess a reasonably good color; that are reasonably uniform in size; that are reasonably free from defects; that possess a reasonably good character; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen apples that fail to meet the requirements of U. S. Grade B or U. S. Choice.

FACTORS OF QUALITY

§ 52.364 *Ascertaining the grade.* (a) The grade of frozen apples is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given for such factors are:

Factors:	*Points*
Color	20
Uniformity of size	20
Absence of defects	20
Character of fruit	40
Total score	100

(c) The scores for the factors of color, uniformity of size, absence of defects, and character are determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) "Good flavor" means that the product has a good, characteristic, normal flavor and odor, and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor" means that the product may be lacking in good flavor and odor; and is free from objectionable flavors and objectionable odors of any kind.

§ 52.365 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.366 *Color*—(a) *(A) classification.* Frozen apples that possess a good color may be given a score of 17 to 20 points. "Good color" means that the frozen apples, internally and externally, possess a reasonably uniform bright color, characteristic of apples of similar varieties.

(b) *(B) classification.* Frozen apples that possess a reasonably good color may be given a score of 14 to 16 points. Frozen apples that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen apples possess a color that is typical of apples of similar varietal characteristics, that may be variable and that the product may possess a slight but not markedly brown or gray cast and shall be practically free from internal discoloration.

(c) *(SStd) classification.* Frozen apples that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product. (This is a limiting rule.)

§ 52.367 *Uniformity of size*—(a) *(A) classification.* Frozen apples that are practically uniform in size may be given a score of 17 to 20 points. "Practically uniform in size" has the following meaning with respect to the various styles of frozen apples:

(1) *Slices.* At least 90 percent by weight of the product consists of whole or practically whole slices of 1¼ inches in length or longer, and that of 90 percent by weight of the product consisting of units of the most uniform thickness, the thickness of the thickest unit does not exceed the thickness of the thinnest unit by more than one-fourth inch. "Practically whole slices" means that the individual slice may be cut or broken but at least three-fourths of the original slice is present.

(2) *Rings.* At least 75 percent by weight of the product consists of whole or practically whole rings and of 90 percent by weight of the product consisting of units of the most uniform thickness, the thickness of the thickest unit does not exceed the thickness of the thinnest unit by more than ⅛ inch. "Practically whole rings" means that the individual ring may be cut or broken on one side but at least ¾ of the ring is present.

(b) *(B) classification.* Frozen apples that are reasonably uniform in size may be given a score of 14 to 16 points. "Reasonably uniform in size" has the following meaning with respect to the various styles of frozen apples:

(1) *Slices.* At least 75 percent by weight of the product consists of whole or practically whole slices 1¼ inch in length or longer and that of 75 percent by weight of the product consisting of units of the most uniform thickness, the thickness of the thickest unit does not exceed the thickness of the thinnest unit by more than ¼ inch.

(2) *Rings.* At least 50 percent by weight of the apples consist of whole or practically whole rings.

(c) *(SStd) classification.* Frozen apples that fail to meet the requirements of paragraph (b) of this section, may be given a score of 0 to 13 points. Frozen apples that fall into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.368 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, damaged or seriously damaged units, and carpel tissue.

(1) "Harmless extraneous material" means any vegetable substance (including but not being limited to, a leaf, stem, or portions thereof, cores or portions of cores, and seeds) that is harmless.

(2) "Damaged" means any unit in which the appearance or eating quality is more than slightly affected by blossom end material, peel, bruise and other external or internal discoloration, or other means; and any unit that is affected by pathological injury or insect injury.

(3) "Seriously damaged" means any unit possessing dark blossom end material, peel that exceeds in the aggregate an area equal to that of a circle ½ inch in diameter, light brown bruise which is more than ¼ inch deep, and dark brown bruise; or means any unit in which the appearance or eating quality is seriously affected by other internal or external discoloration, pathological injury, insect injury, or by other means.

(4) "Practically free from carpel tissue" means that for each 16 ounces of drained weight of the product the carpel tissue present shall not exceed in the aggregate an area equal to ¾ square inch.

(5) "Reasonably free from carpel tissue" means that for each 16 ounces of drained weight of the product the carpel tissue present shall not exceed in the aggregate an area equal to 1½ square inches.

(b) *(A) classification.* Frozen apples that are practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that extraneous material may be present that does not materially affect the appearance or eating quality of the product; that not more than a total of 8 percent, by weight, of the units may be damaged and seriously damaged: *Provided,* That not more than 3 percent, by weight, of all the units are seriously damaged; and that the product is practically free from carpel tissue.

(c) *(B) classification.* Frozen apples that are reasonably free from defects may be given a score of 14 to 16 points. Frozen apples that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that extraneous material may be present that does not seriously affect the appearance or eating quality of the product; that not more than a total of 15 percent, by weight, of the units may be damaged or seriously damaged: *Provided,* That not more than 5 percent, by weight, of all the units are seriously damaged; and that the product is reasonably free from carpel tissue.

(d) *(SStd) classification.* Frozen apples that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.369 *Character*—(a) *General.* The factor of character refers to the tendency of the units to disintegrate or break down and become mushy. Frozen apples that possess a good character may be given a score of 34 to 40 points. "Good character" means that the units possess a reasonably uniform texture, are firm but not hard, with not more than 3 percent by weight, that are "mushy" apples.

(1) "Mushy apples" means fruit that is a pulpy mass and of a consistency approximating applesauce.

(b) *(B) classification.* Frozen apples that possess a reasonably good character may be given a score of 28 to 33 points. Frozen apples that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the units may be variable in texture, with not more than 12 percent by weight of the apples that are markedly soft, markedly hard, or mushy.

(c) *(SStd) classification.* Frozen apples that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.370 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen apples, the grade for such lot will be determined by averaging the total scores for the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated.

(2) None of the containers comprising the sample falls more than 4 points below

the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.371 *Score sheet for frozen apples.*

Size and kind of container				------
Container mark or identification				------
Label				------
Net weight (ounces)				------
Style				------
Ratio of fruit-sugar				------
Style of pack (sugar or sirup)				------
Sirup density (degrees Brix)				------
Factors	**Score points**			
Color	20	(A)	17-20	
		(B)	[1] 14-16	
		(D)	[1] 0-13	
Uniformity of size	20	(A)	17-20	
		(B)	14-16	
		(D)	[1] 0-13	
Absence of defects	20	(A)	17-20	
		(B)	[1] 14-16	
		(D)	[1] 0-13	
Character of fruit	40	(A)	34-40	
		(B)	[1] 28-33	
		(D)	[1] 0-27	
Total score	100			
Normal flavor and odor				------
Grade				------

[1] Indicates limiting rule within classification.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN ASPARAGUS [1]

PRODUCT DESCRIPTION, STYLES, TYPES, AND GRADES

§ 52.381 *Product description.* Frozen asparagus is the product prepared from the clean, sound and succulent fresh shoots of the asparagus plant (Asparagus officianalis) by sorting, trimming, washing, and blanching, which is then frozen and stored at temperatures necessary for the preservation of the product.

(a) "Head" in "Cut Spears" or "Cuts and Tips" means the tip end which has been cut from an asparagus shoot and which is ⅝ inch or more in length or an upper portion which possesses substantial compact head material which has been cut from near the tip end and which is approximately the same length as the predominating length of the units in the container: *Provided,* That when asparagus is cut into units less than ⅝ inch in length, tip ends which are ⅜ inch or more in length will be considered as a "head."

(b) "Unit" means any individual portion of an asparagus shoot ⅜ inch or more in length used in frozen asparagus.

§ 52.382 *Styles of frozen asparagus.* (a) "Spears" (or Stalks") is the style of frozen asparagus that consists of the head and adjoining portion of the shoot that is 3 inches or more in length.

(b) "Tips" is the style of frozen asparagus that consists of the head and adjoining portion of the shoot that is less than 3 inches in length.

(c) "Cut Spears" or "Cuts and Tips" is the style of frozen asparagus that consists of the head and portions of the shoot cut transversely into units 2 inches or less but not less than ½ inch in length. This style shall contain not less than 18 percent,[2] by count, of heads if cut into units 1¼ inches or less in length but not less than ½ inch in length and shall contain not less than 25 percent[2] by count, of heads if cut into units longer than 1¼ inches.[2]

(d) "Center Cuts" or "Cuts" is the style of frozen asparagus that consists of portions of shoots that are cut transversely into units 2 inches or less but not less than ½ inch in length, or that does not meet the foregoing definition for "Cut Spears" or "Cuts and Tips."

§ 52.383 *Grades of frozen asparagus.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen asparagus that possesses similar varietal characteristics; that possesses a good flavor and odor; that is pratically free from defects; that possesses a good character; and that is of such quality with respect to color and uniformity of length as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen asparagus that possesses similar varietal characteristics; that possesses a reasonably good flavor and odor; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; and that is of such quality with respect to uniformity of length as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen asparagus that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

§ 52.384 *Types of frozen asparagus.* The type of frozen asparagus is not incorporated in the grades of the finished product, since the type of frozen asparagus is not a factor of quality for the purpose of these grades. The type of asparagus packed in the container may be designated as "green" or "all-green," or "green-white," asparagus when it meets the following requirements:

(a) "Green" or "all-green" consists of units of frozen asparagus which are typical green, light green, or purplish green in color.

(b) "Green-white" consists of frozen asparagus Spears and Tips, of which at least ⅔ of the length is typical green, light green, or purplish green in color, or that fails to meet the requirements of "green" or "all-green" asparagus spears and tips.

SIZES

§ 52.385 *Size of frozen asparagus.* The size of frozen asparagus Spears and Tips is determined by measuring the longest dimension at right angles to the longitudinal axis of the unit after it has been restored to its original contour, at a point 5 inches from the top, except that units less than 5 inches in length are measured at the base. Frozen asparagus spears and tips will be considered as meeting the designated size, provided, that in sizes small, medium, large, and extra large, as the case may be, 80 percent, by count, are of a single size: *And further provided,* That not more than 10 percent, by count, may be one size larger or one size smaller than a single size. The word and number designations of the various sizes of frozen asparagus are shown in Table No. I of this section.

TABLE NO. I—SIZES OF FROZEN ASPARAGUS, SPEARS, AND TIPS

Word designation	Number designation	Diameter in inches
Small	1	Less than ⅜ inch.
Medium	2	⅜ inch or larger but less than ⅝ inch.
Large	3	⅝ inch or larger but less than ⅞ inch.
Extra large	4	⅞ inch or larger.
Mixture or blend of sizes.	----------	A mixture of two or more sizes or that does not meet any of the foregoing sizes.

FACTORS OF QUALITY

§ 52.386 *Ascertaining the grade.* (a) The grade of frozen asparagus may be ascertained by considering, in conjunction with the other requirements of the respective grade, the respective rating for the factors of color, uniformity of length, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors is:

Factors:	*Points*
Color	20
Uniformity of length	10
Absence of defects	30
Character	40
Total score	100

(c) The scores for the factors of color, uniformity of length, absence of defects, and character are determined immediately after thawing under water to the extent that the product is substantially free from ice crystals and can be handled as individual units, and is cooked to determine tough fibers and the degree of shriveling as required under the factor of "character." The cooking time (from the time the water reboils after the asparagus is added) is nine minutes for sizes No. 1 and No. 2 and twelve minutes for sizes No. 3 and No. 4 and for mixed sizes.

(d) "Good flavor and odor" means that the product, after cooking, has a good, characteristic normal flavor and odor, and is free from objectionable flavors or objectionable odors of any kind.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] The percent, by count, of heads is determined by averaging the percent, by count, of heads in all of the containers comprising the sample: *Provided,* That when cut into units 1¼ inches or less in length no individual container may contain less than 12 percent, by count, of heads, and when cut into units longer than 1¼ inches no container may contain less than 15 percent, by count, of heads.

(e) "Reasonably good flavor and odor" means that the product, after cooking, may be lacking in good characteristic normal flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.387 *Ascertaining the rating of the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.388 *Color*—(a) *General.* The color of asparagus is based on the type and style of asparagus and the characteristic and predominant color of the exterior surface of the units. Units which are substantially green, light green, or purplish green that possess insignificant areas or tinges of typical white or yellowish white color shall be considered as typical green, light green, or purplish green in color, irrespective of type or style.

(b) *(A) classification.* Frozen asparagus that possesses a good color may be given a score of 17 to 20 points. "Good color" has the following meanings with respect to the following types and styles of frozen asparagus:

(1) *Green or all-green spears or tips.* The units possess a good characteristic green, light green, or purplish green color, typical of well developed and tender asparagus and not more than 8 percent, by count, of the units may possess typical white or yellowish white color not in excess of ⅓ of the length of the unit.

(2) *Green or all-green cut spears or cuts and tips and center cuts or cuts.* The units possess a good characteristic green, light green, or purplish green color, typical of at least reasonably well developed and tender asparagus and not more than 6 percent, by count, of the units may be typical white or yellowish white or partially of such color.

(3) *Green-white spears or tips.* The units possess a good characteristic green, light green, or purplish green color typical of well developed and tender asparagus and may possess typical white or yellowish white color: *Provided,* That not more than 5 percent, by count, of the units, or one unit, whichever is larger, may possess such color in excess of ⅓ of the length of the unit.

(c) *(B) classification.* If the frozen asparagus possesses a reasonably good color a score of 14 to 16 points may be given. "Reasonably good color" has the following meanings with respect to the following types and styles of frozen asparagus:

(1) *Green or all-green spears or tips.* The units possess a reasonably good characteristic green, light green, or purplish green color typical of reasonably well developed and tender asparagus and not more than 16 percent, by count, of the units may possess typical white or yellowish white color not in excess of ⅓ of the length of the unit.

(2) *Green or all-green cut spears or cuts and tips and center cuts or cuts.* The units possess a reasonably good characteristic green, light green, or purplish green color, typical of reasonably well developed and tender asparagus and not more than 12 percent, by count, of the units may be typical white or yellowish white or partially of such color.

(3) *Green-white spears or tips.* The units possess a reasonably good characteristic green, light green, or purplish green color, typical of reasonably well developed and tender asparagus, and may possess typical white or yellowish white color: *Provided,* That not more than 10 percent, by count, of the units may possess such color in excess of ⅓ of the length of the unit.

(d) *(SStd) classification.* Frozen asparagus that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.389 *Uniformity of length*—(a) *(A) classification.* Frozen asparagus that is practically uniform in length may be given a score of 9 to 10 points. "Practically uniform in length" has the following meanings with respect to the following styles:

(1) *Spears (or stalks) and tips.* In 90 percent or more, by count, of the units with the most uniform length, the length of the longest unit does not exceed the length of the shortest unit by more than ¼ of the length of the shortest unit.

(2) *Cut spears or cuts and tips and center cuts or cuts.* Not more than 2 percent, by count, of the units are longer than 2 inches and at least 80 percent, by count, shall not vary more than ½ inch from the predominant length of the units.

(b) *(B) classification.* If the frozen asparagus is reasonably uniform in length a score of 7 to 8 points may be given. "Reasonably uniform in length" has the following meanings with respect to the following styles:

(1) *Spears (or stalks) and tips.* In 80 percent or more, by count, of the units with the most uniform length, the length of the longest unit does not exceed the length of the shortest unit by more than ¼ of the length of the shortest unit.

(2) *Cut spears or cuts and tips and center cuts or cuts.* Not more than 5 percent, by count, of the units are longer than 2 inches in length and at least 65 percent, by count, shall not vary more than ½ inch from the predominant length of the units.

(c) *(SStd) classification.* Frozen asparagus that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 6 points and shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.390 *Absence of defects*—(a) *General.* The factor of absence of defects has reference to the degree of freedom from grit or silt, loose material, shattered heads, misshapen units, poorly cut units, and from units damaged and seriously damaged by discoloration, mechanical injury, pathological injury, insect injury, or damaged by other means not specifically mentioned.

(1) "Grit or silt" means sand or any other particle of earthy material.

(2) "Loose material" means any loose or shattered asparagus material, cut or broken pieces, less than ⅜ inch in length.

(3) "Shattered head" means any unit with the asparagus head broken or shattered to the extent that the appearance is seriously affected.

(4) "Misshapen" means any spear (or stalk) or tip that is badly crooked, or any unit that is seriously affected in appearance by doubles or other malformations.

(5) "Poorly cut" means a unit that has a very ragged, stringy, or frayed edge or edges or a unit that is partially cut, or is cut at an angle of less than approximately 45 degrees.

(6) "Damaged" means damaged by discoloration, mechanical injury, pathological injury, insect injury, or damaged by other means which have not been specifically mentioned to such an extent that the aggregate damaged area materially affects the appearance or edibility of the unit.

(7) "Seriously damaged" means damaged to such an extent that the appearance or edibility of the unit is seriously affected.

(b) *(A) classification.* Frozen asparagus that is practically free from defects may be given a score of 26 to 30 points. "Practically free from defects" has the following meanings with respect to the following styles of frozen asparagus:

(1) *Spears (or stalks) and tips.* No grit or silt may be present that affects the appearance or edibility of the product; loose material may be present that does not materially affect the appearance of the product and there may be present not more than 15 percent, by count, of shattered heads, misshapen units, poorly cut units, and damaged and seriously damaged units: *Provided,* That of such 15 percent not more than ⅕ thereof or not more than 3 percent, by count, of all the units may be seriously damaged: *And further provided,* That one unit with shattered head, misshapen unit, poorly cut unit, and damaged and seriously damaged unit is permitted in a container if such unit exceeds the respective allowances of 15 percent, by count, or 3 percent, by count, of all the units.

(2) *Cut spears or cuts and tips and center cuts or cuts.* No grit or silt may be present that affects the appearance or eating quality of the product; loose material may be present that does not materially affect the appearance of the product and there may be present not more than 10 percent, by count, of shattered heads, misshapen units, poorly cut units, and damaged and seriously damaged units: *Provided,* That of such 10 percent not more than ½ thereof or not more than 5 percent, by count, of all the units may be seriously damaged.

(c) *(B) classification.* If the frozen asparagus is reasonably free from defects a score of 22 to 25 points may be given. Frozen asparagus that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meanings with respect to the following styles of frozen asparagus:

(1) *Spears (or stalks) and tips.* Not more than a trace of grit or silt may be present that slightly affects the appearance or eating quality of the product; loose material may be present that does not seriously affect the appearance of the product; and there may be present not more than 30 percent, by count, of shattered heads, misshapen units, poorly cut units, and damaged and seriously damaged units: *Provided,* That of such 30 percent not more than ⅓ thereof or not more than 10 percent, by count, of all the units may be seriously damaged.

(2) *Cut spears or cuts and tips and center cuts or cuts.* Not more than a trace of grit or silt may be present that slightly affects the appearance or eating quality of the product; loose material may be present that does not seriously affect the appearance of the product; and there may be present not more than 20 percent, by count, of shattered heads, misshapen units, poorly cut units, and damaged and seriously damaged units: *Provided,* That of such 20 percent not more than ½ thereof or not more than 10 percent, by count, of all the units may be seriously damaged.

(d) *(SStd) classification.* Frozen asparagus that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.391 *Character*—(a) *General.* The factor of character refers to the degree of development of the head and bracts, and to the tenderness and texture of the unit, and to the degree of freedom from shriveling.

(1) "Well developed" means that the appearance of the head is not materially affected by a seedy appearance and is practically compact.

(2) "Reasonably well developed" means that the head may show a seedy appearance over the surface and the head and bracts may be elongated but not so developed or elongated as to give a definitely spread or branching appearance.

(b) *(A) classification.* Frozen asparagus that possesses a good character may be given a score of 33 to 40 points. "Good character" has the following meanings with respect to the following styles:

(1) *Spears (or stalks) and tips.* Not less than 90 percent, by count, of the heads are well developed, and immediately after thawing and cooking the appearance of the product is not materially affected by shriveling and not more than 10 percent, by count, of the units may possess tough fibers.

(2) *Cut spears or cuts and tips and center cuts or cuts.* The heads are at least reasonably well developed, and immediately after thawing and cooking the appearance of the product is not materially affected by shriveling and not more than 5 percent, by count, of the units may possess tough fibers.

(c) *(B) classification.* If the frozen asparagus possesses a reasonably good character a score of 27 to 32 points may be given. Frozen asparagus that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" has the following meanings with respect to the following styles:

(1) *Spears (or stalks) and tips.* Not less than 90 percent, by count, of the heads are reasonably well developed, and immediately after thawing and cooking the appearance of the product is not seriously affected by shriveling and not more than 20 percent, by count, of the units may possess tough fibers.

(2) *Cut spears or cuts and tips and center cuts or cuts.* Not less than 65 percent, by count, of all the heads are reasonably well developed, and immediately after thawing and cooking the appearance of the product is not seriously affected by shriveling and not more than 10 percent, by count, of the units may possess tough fibers.

(d) *(SStd) classification.* Frozen asparagus that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 26 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.392 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen asparagus, the grade for such lot will be determined by averaging the total scores of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample fall more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.393 *Score sheet for frozen asparagus.*

Number, size and kind of container			------
Container marks or identification			------
Label			------
Net weight (ounces)			------
Style			------
Type			------
Size			------
Heads in cut spears, cuts and tips, (% by count)			------
Factors	Score points		
Color	20	(A) 17-20 (B) 14-16 (SStd.) [1]0-13	
Uniformity of length	10	(A) 9-10 (B) 7-8 (SStd.) [1]0-6	
Absence of defects	30	(A) 26-30 (B) [1]22-25 (SStd.) [1]0-21	
Character	40	(A) 33-40 (B) [1]27-32 (SStd.) [1]0-26	
Total score	100		
Grade			------
Flavor and odor			------

[1]Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED DRIED BEANS [1]

PRODUCT DESCRIPTION, TYPES, STYLES, AND GRADES

§ 52.411 *Product description.* Canned dried beans are prepared from the matured seeds of varieties of beans (sometimes called "peas") used for canning, but not including soy-beans; and may be prepared by washing, soaking, blanching, or other processing; may be packed with or without the addition of water, spices, spice oils, spice flavorings, salt, coloring agents, thickening ingredients, sweetening ingredients, tomato products, pork or pork products, and meat or meat products; and are sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.412 *Types of canned dried beans.* (a) White beans. (b) Lima beans. (c) Red beans. (d) Black-eye beans or black-eye peas. (e) Beans or "peas" of other colors or types.

§ 52.413 *Styles of packs of canned dried beans.* Canned dried beans are usually packed in the following styles:

(a) *In tomato sauce.* This style of pack contains tomato pulp or tomato puree or a similar tomato product in the packing medium with or without any one or more of the following: sweetening ingredients, salt, thickening ingredients, coloring agents, and spices or other flavorings. Variations of this style are:

(1) In tomato sauce with pork or pork product.

(2) In tomato sauce with meat or meat product.

(b) *In sweetened sauce.* This style of pack contains sweetening ingredients in the packing medium with or without any one or more of the following: Salt, thickening ingredients, coloring agents, spices or other flavorings, and molasses. Variations of this style are:

(1) In sweetened sauce with pork or pork product.

(2) In sweetened sauce with meat or meat product.

(c) *In brine.* This style of pack contains water and salt in the packing medium with or without any one or more of the following: spices or other flavorings, and thickening ingredients.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.414 *Grades of canned dried beans.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned dried beans that possess similar varietal characteristics; are practically free from defects; possess a good character; possess a good typical color; possess a reasonably rich, typical and normal flavor; and are of such quality with respect to consistency that the total score is not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned dried beans that possess similar varietal characteristics; possess a fairly good consistency; are fairly free from defects; possess a fairly good character; possess a good typical color; possess a typical and normal flavor; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned dried beans that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.415 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned dried beans be filled with canned dried beans as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume capacity of the container.

FACTORS OF QUALITY

§ 52.416 *Ascertaining the grade.* (a) The grade of canned dried beans may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Consistency, absence of defects, and character.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

	Points
Consistency	20
Absence of defects	40
Character	40
Total score	100

§ 52.417 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, the range "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.418 *Consistency*—(a) (*A*) *classification.* Canned dried beans that possess a good consistency may be given a scope of 17 to 20 points. "Good consistency" has the following meaning for the respective style of canned dried beans when they are emptied on a flat surface:

(1) *In tomato sauce and in sweetened sauce.* The sauce is smooth and is neither grainy nor lumpy and the product forms a slightly mounded mass of beans and packing medium with not more than a slight separation of liquid.

(2) *In brine.* The packing medium is neither grainy nor lumpy and the product may possess a thick consistency or a consistency in which there is a separation of liquid.

(b) (*C*) *classification.* If the canned dried beans possess a fairly good consistency, a score of 14 to 16 points may be given. "Fairly good consistency" has the following meaning for the respective style of canned dried beans when they are emptied on a flat surface:

(1) *In tomato sauce and in sweetened sauce.* The sauce is fairly smooth and may be slightly grainy but is not lumpy and the product possesses a thick consistency with practically no separation of liquid or with a moderate separation of liquid but does not possess a watery consistency.

(2) *In brine.* The packing medium is fairly smooth and may be slightly grainy but is not lumpy and the product may possess a consistency in which there is considerable separation of liquid or may possess a watery consistency.

(c) (*SStd*) *classification.* Canned dried beans that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.419 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous material, from loose skins, from broken and mashed units, and from damaged units.

(1) A "unit" means two cotyledons and a skin, or portions thereof, whether or not attached or combined as a whole bean. A single whole skin or pieces of loose skin aggregating the equivalent of a whole skin will be considered as one-third of a unit. A cotyledon or portions of cotyledons aggregating the equivalent of a cotyledon will be considered as one-third of a unit.

(2) "Loose skins" means skins or portions of skins which have become separated wholly from the cotyledons.

(3) A "broken unit" means a bean from which either cotyledon, or portions thereof, has become detached and any such parts of the bean that have become separated from the whole bean.

(4) "Mashed units" means beans that are crushed or flattened to the extent that their appearance is seriously affected.

(5) "Damaged unit" means any unit that is (i) spotted, discolored, or otherwise damaged to such an extent that its appearance or edibility is materially affected, or (ii) affected by pathological, insect, or similar type injury regardless of the area affected. Beans that possess characteristic darkening around the hilum are not considered damaged units.

(b) (*A*) *classification.* Canned dried beans that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that no extraneous material is present, and, of the units:

(1) Not more than 5 percent, by count, may be loose skins and broken and mashed units; and

(2) Not more than 4 percent, by count, may be damaged units.

(c) (*C*) *classification.* If the canned dried beans are fairly free from defects, a score of 28 to 33 points may be given. Canned dried beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present not more than 1 small piece of harmless extraneous material for each 20 ounces of net weight, and, of the units:

(1) Not more than 10 percent, by count, may be loose skins and broken and mashed units; and

(2) Not more than 8 percent, by count, may be damaged units.

(d) (*SStd*) *classification.* Canned dried beans that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.420 *Character*—(a) (*A*) *classification.* Canned dried beans that possess a good character may be given a score of 34 to 40 points. "Good character" means the beans possess a texture that is typical, that may be slightly granular or slightly firm, and that the skins are tender.

(b) (*C*) *classification.* If the canned dried beans possess a fairly good character, a score of 28 to 33 points may be given. Canned dried beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the beans possess a fairly good typical texture, that the beans may be firm but are not markedly hard, that the beans may be soft but are not mushy, and that the skins may be slightly tough.

(c) (*SStd*) *classification.* Canned dried beans that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS

§ 52.421 *Explanation of terms.* (a) "Similar varietal characteristics" means that the beans are alike in shape, color, and general characteristics.

(b) "Good typical color" means (1) that the beans possess a color distinctly characteristic of the type of canned dried beans; and (2) that the surrounding sauce or brine possesses a color distinctly characteristic for the style of pack.

(c) "Reasonably rich, typical and normal flavor" means a flavor that is indicative of good-flavor ingredients for the respective type and style of pack, and the canned dried beans are free from objectionable flavors or objectionable odors of any kind.

(d) "Typical and normal flavor" means a flavor that is indicative of a product slightly lacking in good-flavor ingredients for the respective type and style of pack, and the canned dried beans are free from objectionable flavors or objectionable odors of any kind.

LOT CERTIFICATION TOLERANCES

§ 52.422 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned dried beans, the grade for such lot will be determined by averaging the total scores of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.423 *Score sheet for canned dried beans.*

Container size			------
Container code or identification			------
Label			------
Net weight (in ounces)			------
Vacuum (in inches)			------
Type			------
Style of pack			------
Factors	Score points		
Consistency	20	(A) 17-20 (C) 14-16 (D) [1] 0-13	
Absence of defects	40	(A) 34-40 (C) [1] 28-33 (D) [1] 0-27	
Character	40	(A) 34-40 (C) [1] 28-33 (D) [1] 0-27	
Total score	100		
Color			------
Flavor			------
Grade			------

[1] Indicates limiting rule within classification.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GREEN BEANS AND CANNED WAX BEANS[1]

IDENTITY, STYLES, AND GRADES

§ 52.441 *Identity.* (a) "Canned green beans" means canned green beans as defined in the definitions and standard of identity for canned green beans (21 CFR 51.10), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

(b) "Canned wax beans" means canned wax beans as defined in the definitions and standard of identity for canned wax beans (21 CFR 51.15), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

(c) "Canned beans" means canned green beans or canned wax beans.

(d) "Whole green beans" or "whole wax beans" means canned beans consisting of whole pods, including pods which after removal of either or both ends are less than 2¾ inches in length, or transversely cut pods not less than 2¾ inches in length.

(e) "Unit" means an individual green bean or wax bean, or portion of either, in canned beans.

§ 52.442 *Styles of canned beans.* (a) "Whole" means canned beans that are not arranged in any definite position in the container.

(b) "Whole vertical pack" means canned beans that are packed parallel to the sides of the container.

(c) "Whole asparagus style" means canned beans consisting of pods that are cut at both ends, are of substantially equal lengths, and are packed parallel to the sides of the container.

(d) "Sliced lengthwise" or "French style" means canned beans consisting of pods that are sliced lengthwise.

(e) "Cut" or "cuts" means canned beans consisting of pods that are cut transversely into pieces less than 2¾ inches, but not less than ¾ inch, in length, and may contain shorter end pieces which result from cutting.

(f) "Short cut" or "short cuts" means canned beans consisting of pieces of pods of which not less than 75 percent are less than ¾ inch in length and not more than 1 percent are more than 1¼ inches in length.

(g) "Mixed" or "mixture" means a mixture of two or more of the following forms of canned beans: "whole;" "sliced lengthwise;" "cuts;" or "short cuts."

§ 52.443 *Grades of canned beans.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned green beans or canned wax beans that possess similar varietal characteristics; possess a normal flavor and odor; are not materially affected in appearance by sloughing of the epidermis; are very young and tender; and are of such quality with respect to clearness of liquor, uniformity of color, and absence of defects as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of canned green beans or canned wax beans that possess similar varietal characteristics; possess a normal flavor and odor; are not materially affected in appearance by sloughing of the epidermis; possess a reasonably uniform typical color; are young and reasonably tender; are reasonably free from defects; and are of such quality with respect to clearness of liquor as to score not less than 75 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned green beans or canned wax beans that possess similar varietal characteristics; possess a normal flavor and odor; are not seriously affected in appearance by sloughing of the epidermis; possess a fairly uniform typical color; are nearly mature and fairly tender; possess a fairly good liquor; are fairly free from defects; and score not less than 60 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned beans that fail to meet the requirements of U. S. Grade C or U. S. Standard and may or may not be "Below standard in quality, good food, not high grade."

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.444 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned beans be filled with green beans or wax beans, as the case may be as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.445 *Recommended drained weight.* The drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of green beans or wax beans, as the case may be, is determined by emptying the contents of the container upon a No. 8 circular sieve of proper diameter and allowing to drain for 2 minutes. A sieve 8 inches in diameter is used for No. 2½ size cans (401 x 411) and smaller sizes, and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I—RECOMMENDED MINIMUM DRAINED WEIGHTS, IN OUNCES, OF GREEN BEANS AND WAX BEANS

Container size or designation	Styles of canned beans			
	Whole	Whole vertical pack or whole asparagus style	Short cuts and cuts less than 1½ inches	French style and cuts 1½ inches and longer
8 Z tall	4¼	4¾	4½	4¼
8-ounce jar	4	----------	4¼	4
No. 1 (picnic)	5¾	6¼	6	5¾
No. 1 tall	9	10	9¼	9
No. 300	8¼	9¼	8½	8¼
No. 300 jar	8½	----------	8¾	8½
No. 303	9	9¾	9¼	9
No. 303 jar	9½	----------	9¾	9½
No. 2	11	12	11¼	11
No. 2½	16¼	17½	16¾	16¼
No. 2½ jar	16¼	----------	16¾	16¼
No. 10	61	66	63	61

TYPES AND SIZES

§ 52.446 *Types of canned beans.* The type of canned beans is not incorporated in the grades of the finished product, since the type of canned beans is not a factor of quality for the purpose of these grades. The type of canned beans is dependent upon the type of beans packed in the container and is described as round type or flat type.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(a) "Round type canned green beans" are canned beans consisting of round type green beans having a width not greater than 1½ times the thickness of the bean. "Round type canned wax beans" are canned beans consisting of round type wax beans having a width not greater than 1½ times the thickness of the bean.

(b) "Flat type canned green beans" are canned beans consisting of flat type green beans having a width greater than 1½ times the thickness of the bean. "Flat type canned wax beans" are canned beans consisting of flat type wax beans having a width greater than 1½ times the thickness of the bean.

§ 52.447 *Sizes of green beans or wax beans in canned beans.* The size of green beans or wax beans is not a factor of quality of canned beans for the purpose of these grades. The size of a green bean or wax bean is determined by measuring the shorter diameter of the bean transversely to the long axis at the thickest portion of the pod. The designations of the various sizes of round type and flat type green beans or wax beans packed as canned beans are shown in Table No. II of this section.

TABLE NO. II—SIZES OF GREEN BEANS AND WAX BEANS IN CANNED BEANS

Size of beans (inches in thickness)	Round type beans in various styles of canned beans			Flat type beans in whole, cut or short cut beans	
	Number designation	Whole beans, word designation	Cut or short cut beans, word designation	Number designation	Word designation
Less than 14½/64 inch in thickness.	Size 1	Tiny	Small	Size 2	Small.
14½/64 inch to, but not including, 18½/64 inch in thickness.	Size 2	Small	do	Size 3	Medium.
18½/64 inch to, but not including, 21/64 inch in thickness.	Size 3	Medium	do	Size 4	Medium large.
21/64 inch to, but not including, 24/64 inch in thickness.	Size 4	Medium large	Medium	Size 5	Large.
24/64 inch to, but not including, 27/64 inch in thickness.	Size 5	Large	Large	Size 6	Extra large.
27/64 inch or more in thickness	Size 6	Extra large	Extra large	Size 6	Do.

FACTORS OF QUALITY

§ 52.448 *Ascertaining the grade.* (a) The grade of canned beans may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings of the factors of clearness of liquor, color, absence of defects, and maturity.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Clearness of liquor	10
Color	15
Absence of defects	35
Maturity	40
Total score	100

(c) "Normal flavor and normal odor" means that the canned beans are free from objectionable flavors and objectionable odors of any kind.

§ 52.449 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "32 to 35 points" means 32, 33, 34, or 35 points).

§ 52.450 *Clearness of liquor*—(a) *(A) classification.* Canned beans that possess a practically clear liquor may be given a score of 9 to 10 points. "Practically clear liquor" means that the liquor may possess a slight tint of yellow-green to green color and that not more than a trace of suspended material and sediment is present.

(b) *(B) classification.* If the canned beans possess a reasonably clear liquor, a score of 7 to 8 points may be given. "Reasonably clear liquor" means that the liquor may be cloudy and contain a small quantity of sediment.

(c) *(C) classification.* If the canned beans possess a fairly good liquor, a score of 5 to 6 points may be given. "Fairly good liquor" means that the liquor may be dull in color, but not off color; may be cloudy; or may possess a noticeable accumulation of sediment.

(d) *(SStd) classification.* Canned beans that possess a liquor that is definitely off color for any reason, is excessively cloudy, or contains a seriously objectionable quantity of sediment may be given a score of 0 to 4 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.451 *Color*—(a) *(A) classification.* Canned beans that possess a practically uniform bright typical color may be given a score of 14 to 15 points. "Practically uniform bright typical color" means that the canned beans possess a color that is bright and typical of very young and tender green beans or wax beans, as the case may be, of similar varietal characteristics with not more than 5 percent, by count, which vary markedly from this color.

(b) *(B) classification.* If the canned beans possess a reasonably uniform typical color, a score of 12 to 13 points may be given. "Reasonably uniform typical color" means that the canned beans possess a color that is typical of young and reasonably tender green beans or wax beans, as the case may be, of similar varietal characteristics with not more than 10 percent, by count, which vary markedly from this color.

(c) *(C) classification.* Canned beans that possess a fairly uniform typical color may be given a score of 10 to 11 points. Canned beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly uniform typical color" means that the canned beans possess a color that is typical of nearly mature and fairly tender green beans or wax beans, as the case may be, of similar varietal characteristics with not more than 15 percent, by count, which vary markedly from this color.

(d) *(SStd) classification.* Canned beans that are definitely off color or fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 9 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.452 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, loose seed and pieces of seed, unstemmed units, ragged-cut units, split units, small pieces of pods, units damaged by mechanical injury, and units blemished by scars, pathological injury, insect injury, or blemished by other means.

(1) "Blemished unit" means any unit in which the aggregate area affected exceeds the area of a circle ⅛ inch in diameter.

(2) "Seriously blemished" means blemished to such an extent that the appearance or eating quality of the unit is seriously affected.

(3) "Extraneous vegetable matter" means leaves, detached stems, and other similar vegetable matter.

(4) "Ragged-cut unit" means a section of a pod that has a very ragged edge, or a section of a pod that is partially cut.

(5) "Split unit" means a whole bean, cut, or short cut unit, that is split into two parts.

(6) "Small pieces of pods" means pieces of pods less than ½ inch in length.

(7) "Damaged by mechanical injury" means broken or damaged to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) *(A) classification.* Canned beans that are practically free from defects may be given a score of 32 to 35 points. "Practically free from defects" has the following meanings with respect to the following styles of packs of canned green beans or canned wax beans:

(1) *Whole or cut.* "Practically free from defects" means that the weight of all loose seed and pieces of seed does not exceed 3 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 10 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 4 unstemmed units or 4 detached stems, or any combination of not more than 4 unstemmed units and detached stems;

(iii) Not more than 2 percent, by count, of blemished units, and of such 2 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 5 ragged-cut units, 5 units damaged by mechanical injury, or any combination of not more than 5 ragged-cut units and units damaged by mechanical injury;

(v) Not more than 5 percent, by weight, of split units; and

(vi) Not more than 40 small pieces of pods in cut style, provided that where the number of units per 12 ounces drained weight exceed 240, not more than 15 percent, by count, of the total units are less than ½ inch long.

(2) *Sliced lengthwise.* "Practically free from defects" means that the pods are well sliced; the combined weight of all defects and defective units does not exceed 10 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 4 unstemmed units or 4 detached stems, or any combination of not more than 4 unstemmed units and detached stems; and

(iii) Not more than 2 percent, by count, of blemished units, and of such 2 percent not more than one-half thereof may consist of units that are seriously blemished.

(3) *Short cuts.* "Practically free from defects" means that the weight of all loose seed and pieces of seed does not exceed 3 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 10 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 4 unstemmed units or 4 detached stems, or any combination of not more than 4 unstemmed units and detached stems;

(iii) Not more than 5 ragged-cut units, 5 units damaged by mechanical injury, or any combination of not more than 5 ragged-cut units and units damaged by mechanical injury;

(iv) Not more than 5 percent, by weight, of split units; and

(v) Not more than 2 percent, by count, of blemished units, and of such 2 percent not more than one-half thereof may consist of units that are seriously blemished.

(4) *Mixed when not containing pods that are sliced lengthwise.* "Practically free from defects" means that the weight of all loose seed and pieces of seed does not exceed 3 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 10 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 4 unstemmed units or 4 detached stems, or any combination of not more than 4 unstemmed units and detached stems;

(iii) Not more than 2 percent, by count, of blemished units, and of such 2 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 5 ragged-cut units, 5 units damaged by mechanical injury, or any combination of not more than 5 ragged-cut units and units damaged by mechanical injury;

(v) Not more than 5 percent, by weight, of split units; and

(vi) Not more than 40 small pieces of pods, provided that where the number of units per 12 ounces drained weight exceed 240, not more than 15 percent, by count, of the total units are less than ½ inch long.

(5) *Mixed when containing pods that are sliced lengthwise.* "Practically free from defects" means that the pods that are sliced lengthwise are well sliced and that the combined weight of all defects and defective units does not exceed 10 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 4 unstemmed units or 4 detached stems, or any combination of not more than 4 unstemmed units and detached stems;

(iii) Not more than 2 percent, by count, of blemished units, and of such 2 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 5 percent, by weight, of split units; and

(v) Not more than 40 small pieces of pods, provided that where the number of units per 12 ounces drained weight exceed 240, not more than 15 percent, by count, of the total units are less than ½ inch long.

(c) *(B) classification.* If the canned beans are reasonably free from defects, a score of 27 to 31 points may be given. "Reasonably free from defects" has the following meanings with respect to the following styles of canned beans:

(1) *Whole or cut.* "Reasonably free from defects" means that the weight of all loose seed and pieces of seed does not exceed 4 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 15 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 5 unstemmed units or 5 detached stems, or any combination of not more than 5 unstemmed units and detached stems;

(iii) Not more than 4 percent, by count, of blemished units, and of such 4 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 10 ragged-cut units, 10 units damaged by mechanical injury, or any combination of not more than 10 ragged-cut units and units damaged by mechanical injury;

(v) Not more than 10 percent, by weight, of split units; and

(vi) Not more than 60 small pieces of pods in cut style, provided that where the number of units per 12 ounces drained weight exceed 240, not more than 25 percent, by count, of the total units are less than ½ inch long.

(2) *Sliced lengthwise.* "Reasonably free from defects" means that the pods are reasonably well sliced; the combined weight of all defects and defective units does not exceed 15 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 5 unstemmed units or 5 detached stems, or any combination of not more than 5 unstemmed units and detached stems; and

(iii) Not more than 4 percent, by count, of blemished units, and of such 4 percent not more than one-half thereof may consist of units that are seriously blemished.

(3) *Short cuts.* "Reasonably free from defects" means that the weight of all loose seed and pieces of seed does not exceed 4 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 15 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 5 unstemmed units or 5 detached stems, or any combination of not more than 5 unstemmed units and detached stems;

(iii) Not more than 10 ragged-cut units, 10 units damaged by mechanical injury, or any combination of not more than 10 ragged-cut units and units damaged by mechanical injury;

(iv) Not more than 10 percent, by weight, of split units; and

(v) Not more than 4 percent, by count, of blemished units, and of 4 percent not more than one-half thereof may consist of units that are seriously blemished.

(4) *Mixed when not containing pods that are sliced lengthwise.* "Reasonably free from defects" means that the weight of all loose seed and pieces of seed does not exceed 4 percent of the drained weight of the units; the combined weight of all other defects and defective units does not exceed 15 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 5 unstemmed units or 5 detached stems, or any combination of not more than 5 unstemmed units and detached stems;

(iii) Not more than 4 percent, by count, of blemished units, and of such 4 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 10 ragged-cut units, 10 units damaged by mechanical injury, or any combination of not more than 10 ragged-cut units and units damaged by mechanical injury;

(v) Not more than 10 percent, by weight, of split units; and

(vi) Not more than 60 small pieces of pods, provided that where the number of units per 12 ounces drained weight exceeds 240, not more than 25 percent, by count, of the total units are less than ½ inch long.

(5) *Mixed when containing pods that are sliced lengthwise.* "Reasonably free from defects" means that the pods that are sliced lengthwise are reasonably well sliced and that the combined weight of all defects and defective units does not exceed 15 percent of the drained weight of the units; and that for each 12 ounces, drained weight, of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter, exclusive of detached stems;

(ii) Not more than 5 unstemmed units or 5 detached stems, or any combination of not more than 5 unstemmed units and detached stems;

(iii) Not more than 4 percent, by count, of blemished units, and of such 4 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) Not more than 10 percent, by weight, of split units; and

(v) Not more than 60 small pieces of pods, provided that where the number of units per 12 ounces drained weight exceed 240, not more than 25 percent, by count, of the total units are less than ½ inch long.

(d) *(C) classification.* If the canned beans are fairly free from defects, a score of 22 to 26 points may be given. Canned beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meanings with respect to the following styles of canned beans:

(1) *Whole or cut.* "Fairly free from defects" means that the weight of all loose seed and pieces of seed does not exceed 5 percent of the drained weight of the units; [2] the combined weight of all other defects and defective units does not exceed 20 percent of the drained weight of the units, and that:

(i) The combined weight of all extraneous vegetable matter does not exceed 0.6 ounce per 60 ounces, drained weight, of the units; [2]

(ii) There are not more than 6 unstemmed units per 12 ounces, drained weight, of units; [2]

(iii) There are not more than 8 percent, by count, of blemished units,[2] and of such 8 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) There may be present not more than 15 percent, by weight, of split units; and

(v) There are not more than 60 units per 12 ounces, drained weight, of units which are less than ½ inch long in cut style, *Provided*, That where the number of units per 12 ounces drained weight exceeds 240, not more than 25 percent, by count, of the total units are less than ½ inch long.[2]

(2) *Sliced lengthwise.* "Fairly free from defects" means that the pods are fairly well sliced; the combined weight of all defects and defective units does not exceed 20 percent of the drained weight of the units, and that:

(i) The combined weight of all extraneous vegetable matter does not exceed 0.6 ounce per 60 ounces, drained weight, of the units; [2]

(ii) There are not more than 6 unstemmed units per 12 ounces, drained weight, of the units; [2] and

(iii) There are not more than 8 percent, by count, of blemished units,[2] and of such 8 percent not more than one-half thereof may consist of units that are seriously blemished.

(3) *Short cuts.* "Fairly free from defects" means that the weight of all loose seed and pieces of seed does not exceed 5 percent of the drained weight of the units; [2] the combined weight of all other defects and defective units does not exceed 20 percent of the drained weight of the units and that:

(i) The combined weight of all extraneous vegetable matter does not exceed 0.6 ounce per 60 ounces, drained weight, of the units; [2]

(ii) There are not more than 6 unstemmed units per 12 ounces, drained weight, of the units; [2]

(iii) There may be present not more than 15 percent, by weight, of split units; and

(iv) There are not more than 8 percent, by count, of blemished units,[2] and of such 8 percent not more than one-half thereof may consist of units that are seriously blemished.

(4) *Mixed when not containing pods that are sliced lengthwise.* "Fairly free from defects" means that the weight of all loose seed and pieces of seed does not exceed 5 percent of the drained weight of the units; [2] the combined weight of all other defects and defective units does not exceed 20 percent of the drained weight of the units, and that:

(i) The combined weight of all extraneous vegetable matter does not exceed 0.6 ounce per 60 ounces, drained weight, of the units; [2]

(ii) There are not more than 6 unstemmed units per 12 ounces, drained weight, of units; [2]

(iii) There are not more than 8 percent, by count, of blemished units,[2] and of such 8 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) There may be present not more than 15 percent, by weight, of split units; and

(v) There are not more than 60 units per 12 ounces, drained weight, of units which are less than ½ inch long, *Provided*, That where the number of units per 12 ounces drained weight exceeds 240, not more than 25 percent, by count, of the total units are less than ½ inch long.[2]

(5) *Mixed when containing pods that are sliced lengthwise.* "Fairly free from defects" means that the pods that are sliced lengthwise are fairly well sliced; and that the combined weight of all defects and defective units does not exceed 20 percent of the drained weight of the units, and that:

(i) The combined weight of all extraneous vegetable matter does not exceed 0.6 ounce per 60 ounces, drained weight, of the units; [2]

(ii) There are not more than 6 unstemmed units per 12 ounces, drained weight, of units; [2]

(iii) There are not more than 8 percent, by count, of blemished units,[2] and of such 8 percent not more than one-half thereof may consist of units that are seriously blemished;

(iv) There may be present not more than 15 percent, by weight, of split units; and

(v) There are not more than 60 units per 12 ounces, drained weight, of units which are less than ½ inch long, *Provided*, That where the number of units per 12 ounces drained weight exceeds 240, not more than 25 percent, by count, of the total units are less than ½ inch long.[2]

(e) *(SStd) classification.* Canned beans that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be "Below standard in quality, good food, not high grade" for the following applicable reasons: excessive number of very short pieces, excessive number of blemished units, excessive number of unstemmed units, excessive foreign material, and excessive loose seed and pieces of seed.

§ 52.453 *Maturity*—(a) *General.* The factor of maturity refers to the degree of development of pods and seeds and the tenderness of the pods.

(1) "Trimmed pod" means any pod from which there has been trimmed off as far as the end of the space formerly occupied by seed, any portion of the pod from which seed has become separated.

(2) "Tough strings" means strings or pieces of string at least ½ inch in length which will support a ½ pound weight for not less than 5 seconds.

(3) "Fibrous material" means the properly prepared, dried cellulose material obtained from deseeded pods, including strings, broken or unbroken.

(b) *(A) classification.* Canned beans that are very young and tender may be given a score of 35 to 40 points. "Very young and tender" means that the units are fullfleshed for the variety, tender and not fibrous; the seeds are in the early stages of maturity; and not more than 5 percent, by count, of the units possess tough strings.

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[2] Determined as outlined in the standards of quality of canned green beans (21 CFR 51.11) and canned wax beans (21 CFR 51.16) promulgated under the Federal Food, Drug, and Cosmetic Act.

(c) *(B) classification.* If the canned beans are young and reasonably tender, a score of 29 to 34 points may be given. Canned green beans or canned wax beans that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Young and reasonably tender" means that the units may, to some extent, have lost their fleshy structure; the seeds may have passed the early stages of maturity and have not reached the late stages of maturity; are not fibrous; and not more than 10 percent, by count, of the units may possess tough strings.

(d) *(C) classification.* If the canned beans are nearly mature and fairly tender, a score of 23 to 28 points may be given. Canned green beans or canned wax beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Nearly mature and fairly tender" means that the units may have lost, to a considerable extent, their fleshy structure, and that:

(1) The trimmed pods contain not more than 25 percent, by weight, of seed and pieces of seed; [2]

(2) The deseeded pods contain not more than 0.15 percent, by weight, of fibrous material; [2] and

(3) Not more than 20 percent, by count, of the units may possess tough strings except that in case there are present units at least 17/64 inch or more in diameter, there are not more than 12 strings or pieces of strings in 12 ounces, drained weight, which will support a 1/2 pound weight for not less than 5 seconds.[2]

(e) *(SStd) classification.* Canned beans that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 22 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be "Below Standard in quality, good food, not high grade," for the following applicable reasons: excessive seed and pieces of seed in trimmed pods, excessive fibrous material in deseeded pods, and excessive tough strings when there are present units 27/64 inch or more in diameter.

LOT CERTIFICATION TOLERANCES

§ 52.454 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned green beans or canned wax beans, the grade for such lot will be determined by averaging the total score of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.455 *Score sheet for canned green beans or canned wax beans.*

Container size	------
Container code or marking	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight	------
Type (round or flat)	------
Variety (green or wax)	------
Style	------
Size of green beans or wax beans	------

Factors	Score points		
Clearness of liquor	10	(A) 9-10 (B) 7-8 (C) 5-6 (SStd.) [1]0-4	
Color	15	(A) 14-15 (B) 12-13 (C) [1]10-11 (SStd.) [1]0-9	
Absence of defects	35	(A) 32-35 (B) 27-31 (C) [1]22-26 (SStd.) [1]0-21	
Maturity	40	(A) 35-40 (B) [1]29-34 (C) [1]23-28 (SStd.) [1]0-22	
Total score	100		

Grade	------
Normal flavor and odor	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED LIMA BEANS [1]

IDENTITY, TYPES, AND GRADES

§ 52.471 *Identity.* "Canned lima beans" means the canned product properly prepared from the clean, sound, succulent seed of the lima bean plant, as defined in the definitions and standard of identity for canned vegetables (21 CFR 52.990) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.472 *Types of canned lima beans.* (a) "Thin-seeded," such as Henderson Bush and Thorogreen varieties;

(b) "Thick-seeded Baby Potato," such as Baby Potato, Baby Fordhook, and Evergreen varieties;

(c) "Thick-seeded," such as Fordhook variety.

§ 52.473 *Grades of canned lima beans.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned lima beans that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a good color; that are practically free from defects; that possess a practically clear liquor; that possess a good character; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 90 points: *Provided,* That the canned lima beans may possess a reasonably good character and a fairly clear liquor if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of canned lima beans that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a reasonably good color; that are reasonably free from defects; that possess a reasonably clear liquor; that possess a reasonably good character; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 80 points: *Provided,* That the canned lima beans may possess a fairly clear liquor if the total score is not less than 80 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned lima beans that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a fairly good color; that are fairly free from defects; that possess a fairly clear liquor; that possess a fairly good character; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned lima beans that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.474 *Recommended fill of container.* The recommended fill of container for canned lima beans is not incorporated in the grades of the finished product, since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned lima beans be filled as full as practicable with beans without impairment of quality.

§ 52.475 *Recommended minimum drained weight.* The minimum drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product, since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned lima beans is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter so as to distribute the product evenly, inclining the sieve to facilitate drainage and allow to drain for two minutes. The drained weight is the weight of the sieve and the lima beans less the weight of the dry sieve. A sieve 8 inches in diameter is used for the No. 2 size can (307 x 409) and smaller sizes, and a sieve 12 inches in diameter is used for containers larger than the No. 2 size can.

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[2] Determined as outlined in the standards of quality of canned green beans (21 CFR 51.11) and canned wax beans (21 CFR 51.16) promulgated under the Federal Food, Drug, and Cosmetic Act.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

TABLE NO. I—RECOMMENDED MINIMUM DRAINED WEIGHTS (IN OUNCES) OF LIMA BEANS

Container designation	Container size			Drained weight
	Overall diameter (inches)	Overall height (inches)	Overflow capacity (fluid ounces)	
8 Z tall	2 11/16	3 4/16		5½
8 Z jar			8.2	5½
No. 1 (picnic)	2 11/16	4		7
No. 1 tall	3 1/16	4 11/16		10¾
No. 300	3	4 7/16		9¾
No. 303	3 3/16	4 6/16		11
No. 303 jar			17.0	11
No. 2	3 7/16	4 9/16		13½
No. 10	6 3/16	7		72

SIZES

§ 52.476 *Sizes of lima beans in canned lima beans.* The size of lima beans is not a factor of quality of canned lima beans for the purpose of these grades. The size of a lima bean is determined by measuring the greatest width through the center at right angles to the longitudinal axis of the bean. The designations of the various sizes of lima beans packed as canned beans are shown in Table No. II of this section.

TABLE NO. II—SIZES OF LIMA BEANS IN CANNED LIMA BEANS

Word designation:	*Size of lima beans (inches in width)*
Midget	28/64 inch in width and smaller.
Tiny	Over 28/64 inch to and including 30/64 inch in width.
Small	Over 30/64 inch to and including 34/64 inch in width.
Medium	Over 34/64 inch to and including 38/64 inch in width.
Large	Larger than 38/64 inch in width.

FACTORS OF QUALITY

§ 52.477 *Ascertaining the grade.* (a) The grade of canned lima beans is ascertained by considering, in conjunction with the other requirements of the respective grade, the respective ratings for the factors of color, clearness of liquor, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factor:	*Points*
Color	35
Clearness of liquor	10
Absence of defects	25
Character	30
Total score	100

(c) "Normal flavor and normal odor" means that the product is free from objectionable flavors and objectionable odors of any kind.

§ 52.478 *Ascertaining the rating of the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "8 to 10 points" means 8, 9, or 10 points).

§ 52.479 *Color*—(a) *General.* (1) "Green" with respect to thin-seeded and thick-seeded Baby Potato types means that the color of the individual lima bean possesses as much or more green color than Plate 11, F–2, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(2) "Green" with respect to thick-seeded types means that the color of the individual lima bean possesses as much or more green color than Plate 12, L–2, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(3) "White" with respect to thin-seeded and thick-seeded Baby Potato types means that the individual lima bean is lighter in color than Plate 11, C–2, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(4) "White" with respect to thick-seeded type means that the individual lima bean is lighter in color than Plate 11, L–3, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(b) (*A*) *classification.* Canned lima beans that possess a good color may be given a score of 32 to 35 points. "Good color" means that the lima beans, regardless of type, possess a bright typical color and meet the following additional color requirements for the respective types:

(1) *Thin-seeded types; Thick-seeded Baby Potato type.* (i) Not less than 90 percent, by count, of the lima beans are "green" defined as aforesaid, and not more than 10 percent, by count, may be lighter in color: *Provided,* That not more than 1 percent, by count, of all the lima beans are white.

(ii) Not less than 97 percent, by count, of the lima beans are "green," defined as aforesaid, and not more than 3 percent, by count, may be lighter in color or white lima beans.

(2) *Thick-seeded type.* Not less than 90 percent, by count, of the lima beans are "green," defined as aforesaid, and not more than 10 percent, by count, may be lighter in color: *Provided,* That not more than 3 percent, by count, of all the lima beans are white.

(c) (*B*) *classification.* If the canned lima beans possess a reasonably good color, a score of 29 to 31 points may be given. Canned lima beans that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the lima beans, regardless of type, possess a typical color and meet the following additional requirements for the respective types:

(1) *Thin-seeded type; Thick-seeded Baby Potato type.* Not less than 50 percent, by count, of the lima beans are "green," defined as aforesaid, and not more than 50 percent, by count, may be lighter in color: *Provided,* That not more than 25 percent, by count, of all the lima beans are white.

(2) *Thick-seeded type.* Not less than 50 percent, by count, of the lima beans are "green," defined as aforesaid, and not more than 50 percent, by count, may be lighter in color: *Provided,* That not more than 25 percent, by count, of all the lima beans are white.

(d) (*C*) *classification.* Canned lima beans that possess a fairly good color may be given a score of 26 to 28 points. Canned lima beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the lima beans, regardless of type, possess a typical color and meet the following additional requirements for the respective types:

(1) *Thin-seeded type; Thick-seeded Baby Potato type.* Less than 50 percent, by count, of the lima beans are "green," defined as aforesaid, and all of the lima beans may be white.

(2) *Thick-seeded type.* Less than 50 percent, by count, of the lima beans are "green," defined as aforesaid, and all of the lima beans may be white.

(e) (*SStd*) *classification.* Canned lima beans that are definitely off color or fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 25 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.480 *Clearness of liquor*—(a) (*A*) *classification.* Canned lima beans that possess a practically clear liquor may be given a score of 9 or 10 points. "Practically clear liquor" means that the liquor may be slightly cloudy and that not more than a small amount of sediment is present.

(b) (*B*) *classification.* If the canned lima beans possess a reasonably clear liquor, a score of 7 or 8 points may be given. "Reasonably clear liquor" means that the liquor may be somewhat cloudy and may contain a considerable amount of sediment.

(c) (*C*) *classification.* Canned lima beans that possess a fairly clear liquor may be given a score of 5 or 6 points. "Fairly clear liquor" means that the liquor may be dull in color but not to the extent that the appearance is seriously affected, and may be rather viscous cream-like, or starchy.

(d) (*SStd*) *classification.* Canned lima beans that possess a liquor that is definitely off color for any reason or that contains an excessive amount of sediment may be given a score of 0 to 4 points and shall not be graded above Substandard, regardless of the total score for the product (this is limiting rule).

§ 52.481 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, from loose skins, loose cotyledons, broken beans, sprouted beans, and from beans that show light discoloration or that are blemished or seriously blemished.

(1) "Extraneous vegetable matter" means pods or pieces of pods, leaves, stems, and other similar vegetable matter.

(2) "Broken bean" means a bean from which one-half or more of a cotyledon or the equivalent thereof has become detached; or pieces of cotyledon aggregating the equivalent of an average size whole cotyledon.

(3) "Loose cotyledon" means a whole cotyledon which has become separated from the skin.

(4) "Loose skin" means a whole skin or portions of skin aggregating the equivalent of an average size whole

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[2] Second Edition.

skin which has become separated from the cotyledons.

(5) "Light discoloration" means light discoloration of the hilum or other light discoloration which slightly affects but does not materially affect the appearance of the bean.

(6) "Sprouted" means lima beans that show an external shoot protruding beyond the cotyledon or skin.

(7) "Blemished" means blemished by discoloration, pathological injury, insect injury, or blemished by other means, other than by light discoloration which is not considered blemished, to such an extent that the aggregate blemished area materially affects the appearance or eating quality of a bean or any detached piece of a bean.

(8) "Seriously blemished" means blemished to such an extent that the aggregate blemished area seriously affects the appearance or eating quality of a bean or any detached piece of a bean.

(b) *(A) classification.* Canned lima beans that are practically free from defects may be given a score of 22 to 25 points. "Practically free from defects" means that the aforesaid defects, individually or collectively, do not more than slightly affect the appearance or eating quality of the product. The following allowances provide a guide for scoring canned lima beans which are practically free from defects:

(1) For each 10 ounces drained weight of beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate area of $\frac{3}{16}$ square inch ($\frac{1}{2}$'' x $\frac{3}{8}$'') on one surface of the piece, or pieces;

(ii) 3 percent, by count, of loose skins;

(iii) 5 percent, by count, of broken beans and loose cotyledons;

(iv) 1 percent, by count, of sprouted beans; and

(v) 2 percent, by count, of blemished and seriously blemished beans, and of such 2 percent, not more than $\frac{1}{4}$ thereof or $\frac{1}{2}$ of 1 percent, by count, of all the beans may be seriously blemished.

(c) *(B) classification.* If the canned lima beans are reasonably free from defects, a score of 20 or 21 points may be given. Canned lima beans that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the aforesaid defects, individually or collectively, do not materially affect the appearance or eating quality of the product. The following allowances provide a guide for scoring canned lima beans which are reasonably free from defects:

(1) For each 10 ounces drained weight of beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate area of more than $\frac{3}{16}$ square inch but not more than $\frac{3}{8}$ square inch ($\frac{1}{2}$'' x $\frac{3}{4}$'') on one surface of the piece, or pieces;

(ii) 5 percent, by count, of loose skins;

(iii) 10 percent, by count, of broken beans and loose cotyledons;

(iv) 4 percent, by count, of sprouted beans; and

(v) 3 percent, by count, of blemished and seriously blemished beans, and of such 3 percent, not more than $\frac{1}{3}$ thereof or 1 percent by count, of all the beans may be seriously blemished.

(d) *(C) classification.* Canned lima beans that are fairly free from defects may be given a score of 18 or 19 points. Canned lima beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the aforesaid defects, individually or collectively, do not seriously affect the appearance or eating quality of the product. The following allowances provide a guide for scoring canned lima beans which are fairly free from defects:

(1) For each 10 ounces drained weight of beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate area of more than $\frac{3}{8}$ square inch, but not more than $\frac{3}{4}$ square inch ($\frac{1}{2}$'' x $1\frac{1}{2}$'') on one surface of the piece, or pieces;

(ii) 8 percent, by count, of loose skins;

(iii) 15 percent, by count, of broken beans and loose cotyledons;

(iv) 8 percent, by count, of sprouted beans; and

(v) 4 percent, by count, of blemished and seriously blemished beans, and of such 4 percent, not more than $\frac{1}{2}$ thereof or 2 percent, by count, of all the beans may be seriously blemished.

(e) *(SStd) classification.* Canned lima beans that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.482 *Character.* The factor of character refers to the tenderness and maturity of the product.

(a) *(A) classification.* Canned lima beans that possess a good character may be given a score of 27 to 30 points. "Good character" means that the lima beans are young and tender.

(b) *(B) classification.* If the canned lima beans possess a reasonably good character, a score of 24 to 26 points may be given. "Reasonably good character" means that the lima beans are reasonably young and reasonably tender.

(c) *(C) classification.* Canned lima beans that possess a fairly good character may be given a score of 21 to 23 points. Canned lima beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the lima beans may be nearly mature and possess a fairly tender texture, may be firm and mealy but not hard, or may be soft but not mushy.

(d) *(SStd) classification.* Canned lima beans that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.483 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned lima beans the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.484 *Score sheet for canned lima beans.*

Size and kind of container	----
Container marks or identification	----
Label	----
Net weight (ounces)	----
Vacuum (inches)	----
Drained weight (ounces)	----
Type	----
Size	----
Color: Percent green	----
Color: Percent white	----

Factors	Score points			
Color	35	(A)	32-35	
		(B)	[1]29-31	
		(C)	[1]26-28	
		(SStd.)	[1]0-25	
Clearness of liquor	10	(A)	9-10	
		(B)	7- 8	
		(C)	5- 6	
		(SStd.)	[1]0- 4	
Absence of defects	25	(A)	22-25	
		(B)	[1]20-21	
		(C)	[1]18-19	
		(SStd.)	[1]0-17	
Character	30	(A)	27-30	
		(B)	24-26	
		(C)	[1]21-23	
		(SStd.)	[1]0-20	
Total score	100			

Grade	----
Normal flavor and odor	----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN LIMA BEANS[1]

PRODUCT DESCRIPTION, TYPES, AND GRADES

§ 52.501 *Product description.* "Frozen lima beans" means the frozen product prepared from the clean, sound, succulent seed of the lima bean plant by shelling, washing, blanching, and properly draining, and is then frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.502 *Types of frozen lima beans.* (a) "Thin-seeded," such as Henderson Bush and Thorogreen varieties.

(b) "Thick-seeded Baby Potato," such as Baby Potato, Baby Fordhook, and Evergreen.

(c) "Thick-seeded," such as Fordhook variety.

§ 52.503 *Grades of frozen lima beans.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen lima beans that possess similar varietal characteristics; that possess a good flavor and odor; that are tender; that possess a good color; that are practically free from defects; and that score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen lima beans that possess similar varietal characteristics; that possess a good flavor and odor; that are reasonably tender; that possess a reasonably good color; that are reasonably free from defects; and that score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of frozen lima beans that possess similar varietal characteristics; that possess a fairly good flavor and odor; that are fairly tender; that possess a fairly good color; that are fairly free from defects; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of frozen lima beans that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FACTORS OF QUALITY

§ 52.504 *Ascertaining the grade.* (a) The grade of frozen lima beans is ascertained by considering in conjunction with the other requirements of the respective grade the respective ratings for the factors of color and absence of defects.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors is:

Factors:	*Points*
Color	60
Absence of defects	40
Total score	100

(c) The scores for the factors of color and absence of defects are determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. The tenderness and flavor and odor of frozen lima beans are determined after the product is cooked.

(d) "Good flavor and odor" means that the product, after cooking, has a good, characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product, after cooking, may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.505 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "54 to 60 points" means 54, 55, 56, 57, 58, 59, or 60 points).

§ 52.506 *Color*—(a) *General.* (1) "Green" with respect to thin-seeded and thick-seeded types means that the color of not less than 50 percent of the surface area of the individual lima bean possesses as much or more green color than Plate 18, K–5, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(2) "Green" with respect to thick-seeded Baby Potato type means that the color of not less than 50 percent of the surface area of the individual lima bean possesses as much or more green color than Plate 18, J–3, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(3) "White" means that more than 50 percent of the surface area of the individual lima bean possesses less green color than Plate 18, E–1, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(b) *(A) classification.* Frozen lima beans that possess a good color may be given a score of 54 to 60 points. "Good color" means that the lima beans, regardless of type, possess a bright typical color and meet the following additional color requirements for the respective types:

(1) *Thin-seeded type (with skins removed); Thick-seeded Baby Potato type (with skins on).* (i) Not less than 93 percent, by count, of the lima beans are "green" and not more than 7 percent, by count, may be lighter in color: *Provided,* That not more than 1 percent, by count, of all the lima beans are white, or

(ii) Not less than 97 percent, by count, of the lima beans are "green" and not more than 3 percent, by count, may be lighter in color or white lima beans.

(2) *Thick-seeded type (with skins on).* Not less than 85 percent, by count, of the lima beans are "green" and not more than 15 percent, by count, may be lighter in color: *Provided,* That not more than 1 percent, by count, of all the lima beans are white.

(c) *(B) classification.* If the frozen lima beans possess a reasonably good color, a score of 48 to 53 points may be given. Frozen lima beans that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the lima beans, regardless of type, possess a typical color and meet the following additional requirements for the respective types:

(1) *Thin-seeded type (with skins removed); Thick-seeded Baby Potato type (with skins on).* Not less than 65 percent, by count, of the lima beans are "green" and not more than 35 percent, by count, may be lighter in color or white beans.

(2) *Thick-seeded type (with skins on).* Not less than 60 percent, by count, of the lima beans are "green" and not more than 40 percent, by count, may be lighter in color: *Provided,* That not more than 5 percent, by count, of all the lima beans are white.

(d) *(C) classification.* If the frozen lima beans possess a fairly good color, a score of 42 to 47 points may be given. Frozen lima beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the lima beans, regardless of type, possess a typical color and meet the following additional requirements for the respective types:

(1) *Thin-seeded type (with skins removed); Thick-seeded Baby Potato type (with skins on).* Less than 65 percent, by count, of the lima beans are "green" and all of the lima beans may be white.

(2) *Thick-seeded type (with skins on).* Less than 60 percent, by count, of the lima beans are "green": *Provided,* That not more than 20 percent, by count, of all the lima beans are white.

(e) *(SStd) classification.* Frozen lima beans that are definitely off color or fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 41 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.507 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, from loose skins, loose cotyledons, broken beans, shriveled beans, sprouted beans, and from beans that show light discoloration or that are blemished or seriously blemished.

(1) "Extraneous vegetable matter" means pods or pieces of pods, leaves, stems, and other similar vegetable matter.

(2) "Broken bean" means a bean from which ½ or more of a cotyledon or the equivalent thereof has become detached; or pieces of cotyledon aggregating the equivalent of an average size whole cotyledon.

(3) "Loose cotyledon" means a whole cotyledon which has become separated from the skin.

(4) "Loose skin" means a whole skin, or portions of skin aggregating the equivalent of an average size whole skin, which has become separated from the cotyledons.

(5) "Light discoloration" means discoloration of the hilum or other light discoloration which slightly affects but does not materially affect the appearance of the bean.

(6) "Blemished" means blemished by discoloration, pathological injury, insect injury, or blemished by other means, other than by light discoloration which is not considered blemished, to such an extent that the aggregate blemished area materially affects the appearance or

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[2] First edition.

eating quality of a bean or any detached piece of a bean.

(7) "Seriously blemished" means blemished to such an extent that the aggregate blemished area seriously affects the appearance or eating quality of a bean or any detached piece of a bean.

(8) "Shriveled" means lima beans that are materially wrinkled and are not of normal plumpness.

(9) "Sprouted" means lima beans that show an external shoot protruding beyond the cotyledon or skin.

(b) (*A*) *classification.* Frozen lima beans that are practically free from defects may be given a score of 36 to 40 points. "Practically free from defects" means that the aforesaid defects, individually or collectively, do not more than slightly affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen lima beans which are practically free from defects:

(1) For each 10 ounces of frozen lima beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate of 3/16 square inch (½ inch by ⅜ inch) on one surface of the piece, or pieces;

(ii) 3 percent, by count, of loose skins;

(iii) 5 percent, by count, of broken beans and loose cotyledons, and of such 5 percent, not more than ⅗ thereof or 3 percent, by count, of all the beans may be broken;

(iv) 1 percent, by count, of shriveled and sprouted beans; and

(v) 2 percent, by count, of blemished and seriously blemished beans, and of such 2 percent, not more than ¼ thereof or ½ of 1 percent, by count, of all the beans may be seriously blemished.

(c) (*B*) *classification.* If the frozen lima beans are reasonably free from defects, a score of 32 to 35 points may be given. Frozen lima beans that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the aforesaid defects, individually or collectively, do not materially affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen lima beans that are reasonably free from defects:

(1) For each 10 ounces of frozen lima beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate area of more than 3/16 square inch but not more than ⅜ square inch (½ inch x ¾ inch) on one surface of the piece, or pieces;

(ii) 5 percent, by count, of loose skins;

(iii) 10 percent, by count, of broken beans and loose cotyledons, and of such 10 percent, not more than ½ thereof or 5 percent, by count, of all the beans may be broken;

(iv) 4 percent, by count, of shriveled and sprouted beans; and

(v) 3 percent, by count, of blemished and seriously blemished beans, and of such 3 percent, not more than ⅓ thereof or 1 percent, by count, of all the beans may be seriously blemished.

(d) (*C*) *classification.* Frozen lima beans that are fairly free from defects may be given a score of 28 to 31 points. Frozen lima beans that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the aforesaid defects, individually or collectively, do not seriously affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen lima beans that are fairly free from defects:

(1) For each 10 ounces of frozen lima beans there may be present:

(i) 1 piece, or pieces, of extraneous vegetable matter having an aggregate area of more than ⅜ square inch, but not more than ¾ square inch (½ inch x 1½ inches) on one surface of the piece or pieces;

(ii) 8 percent, by count, of loose skins;

(iii) 15 percent, by count, of broken beans and loose cotyledons, and of each 15 percent, not more than ⅔ thereof or 10 percent, by count, of all the beans may be broken;

(iv) 8 percent, by count, of shriveled and sprouted beans; and

(v) 4 percent, by count, of blemished and seriously blemished beans, and of such 4 percent, not more than ½ thereof or 2 percent, by count, of all the beans may be seriously blemished.

(e) (*SStd*) *classification.* Frozen lima beans that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.508 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen lima beans the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.509 *Score sheet for frozen lima beans.*

Size and kind of container			
Container marks or identification			
Label			
Net weight (ounces)			
Type			
Size			
Color: Percent green			
Color: Percent white			
Factors	Score points		
Color	60	(A)	54-60
		(B)	[1] 48-53
		(C)	[1] 42-47
		(SStd.)	[1] 0-41
Absence of defects	40	(A)	36-40
		(B)	[1] 32-35
		(C)	[1] 28-31
		(SStd.)	[1] 0-27
Total score	100		
Grade			
Flavor and odor			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED BEETS [1]

IDENTITY, STYLES, AND GRADES

§ 52.521 *Identity.* "Canned beets" means canned beets as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.522 *Styles of canned beets.* (a) "Whole" or "whole beets" means canned beets consisting of whole beets that retain the approximate original conformation of the whole beet.

(b) "Slices" or "sliced beets" means canned beets consisting of slices of beets, irrespective of whether such slices are "corrugated," "fluted," "wavy," or "scalloped."

(c) "Quarters" or "quartered beets" means canned beets consisting of quarters of beets.

(d) "Dice" or "diced beets" means canned beets consisting of diced beets.

(e) "Julienne," "French style," or "shoestring" means canned beets consisting of strips of beets.

(f) "Cut" means canned beets consisting of units, irrespective of whether such units are "segmented" or "wedge-shaped," which are not uniform in size or shape or which do not conform to any of the foregoing styles.

(g) "Unit" means an individual beet or portion of a beet in canned beets.

§ 52.523 *Grades of canned beets.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned beets that possess similar varietal characteristics; possess a normal flavor and odor; possess a good color; are practically free from defects; are tender; and possess such uniformity of size and shape as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned beets that possess similar varietal characteristics; possess a normal flavor and odor; possess a fairly good color; are fairly free from defects; are fairly tender; and possess such uniformity of size and shape as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of canned beets that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.524 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled as full as practicable with beets without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.525 *Recommended drained weight.* The drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned beets is determined by emptying the contents of the container upon a No. 8 circular sieve of proper diameter and allowing to drain for 2 minutes. A sieve 8 inches in diameter is used for the No. 2½ size can (401 x 411) and smaller sizes; and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I

[Recommended drained weight, in ounces, of beets]

Container size or designation	Whole (size) [1]		Sliced (size) [1]		Diced	Quartered cut	Julienne
	Size No. 1 to 3, inclusive	Size No. 4 to 6, inclusive	Small	Medium and large			
8-ounce Tall	5¾	5¼	5¾	5¼	6	6	5½
No. 1 Picnic	7¼	7	7¼	7	7½	7½	7
No. 303	10½	10	10	9½	10½	10½	9
No. 2	12½	12	12½	12	13	12½	11
No. 2½	19½	19	19	18½	19½	19	18
No. 10	72	69	71	68	72	71	69
16-ounce glass	10½	9½	9½	9¼	10½	10½	8¾

[1] Assorted sizes and mixed sizes to be based on drained weight for predominant size of individual units.

SIZES

§ 52.526 *Sizes of beets in whole beets.* The size of any beet is determined by measuring the smallest diameter through the center transverse to the longitudinal axis of the beet. The word and number designations of the various sizes of beets in whole beets are shown in Table No. II of this section. Such table also specifies the count range per container for stated container sizes.

TABLE NO. II

[Sizes of beets in whole beets]

Word designation	Number designation	Count range per container				
		No. 1 Picnic	No. 2 can	No. 2½ can	No. 10 can	16-ounce glass
Tiny	Size 1	25 and over	50 and over	70 and over	250 and over	35 and over.
	Size 2	18 to but not including 25.	35 to but not including 50.	50 to but not including 70.	175 to but not including 250.	25 to but not including 35.
Small	Size 3	12 to but not including 18.	25 to but not including 35.	35 to but not including 50.	125 to but not including 175.	18 to but not including 25.
	Size 4	8 to but not including 12.	15 to but not including 25.	20 to but not including 35.	75 to but not including 125.	10 to but not including 18.
Medium	Size 5	5 to but not including 8.	10 to but not including 15.	15 to but not including 20.	50 to but not including 75.	7 to but not including 10.
	Size 6	Less than 5	Less than 10	Less than 15	Less than 50	Less than 7.
Assorted sizes[1]						
Mixed sizes[2]						

[1] Assorted sizes is a combination of any two adjacent sizes.
[2] Mixed sizes is a combination of more than two adjacent sizes.

§ 52.527 *Sizes of beet slices in sliced beets.* The size of any slice in sliced beets is determined by measuring the smallest diameter of the largest surface of the slice. The word designation of the various sizes of slices in sliced beets is shown in Table No. III of this section.

TABLE NO. III

[Sizes of slices in sliced beets]

Word designation	*Smallest diameter in inches*
Small	Less than 2 inches.
Medium	From 2 inches up to but not including 2½ inches.
Large	Not less than 2½ inches.
Assorted sizes.[1]	
Mixed sizes.[2]	

[1] Assorted sizes is a combination of any two adjacent sizes.

[2] Mixed sizes is a combination of all designated sizes.

FACTORS OF QUALITY

§ 52.528 *Ascertaining the grade.* (a) The grade of canned beets may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings of the factors of color, uniformity of size and shape, absence of defects, and texture.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	25
Uniformity of size and shape	15
Absence of defects	30
Texture	30
Total score	100

(c) "Normal flavor and normal odor" means that the canned beets are free from objectionable flavor and objectionable odors of any kind.

§ 52.529 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "12 to 15 points" means 12, 13, 14, or 15 points).

§ 52.530 *Color*—(a) *(A) classification.* Canned beets that possess a good color may be given a score of 21 to 25 points. "Good color" means that the canned beets possess a color that is uniform, bright, and typical of canned beets produced from beets of similar varietal characteristics.

(b) *(C) classification.* If the canned beets possess a fairly good color, a score of 18 to 20 points may be given. Canned beets that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned beets possess a color that is typical of canned beets produced from beets of similar varietal characteristics and such color may be variable or slightly dull.

(c) *(SStd) classification.* Canned beets that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for that product (this is a limiting rule).

§ 52.531 *Uniformity of size and shape*—(a) *(A) classification.* Canned beets that are practically uniform in size and shape may be given a score of 12 to 15 points. "Practically uniform in size and shape" has the following meanings with respect to the various styles of canned beets:

(1) *Whole beets.* The size of the individual beet is not more than 2¼ inches in diameter, measured as aforesaid; the beets may vary moderately in shape, and the diameter of the largest beet does not exceed the diameter of the smallest beet by more than 50 percent of the diameter of the smallest beet.

(2) *Quartered beets.* The beets from which the quarters have been prepared were of a size not more than 2½ inches in diameter, measured as aforesaid, and the weight of the largest quarter does not exceed the weight of the smallest

quarter by more than 50 percent of the weight of the smallest quarter.

(3) *Sliced beets.* The individual slice is not more than 5/16 inch in thickness when measured at the thickest portion; the size of each slice is not more than 3½ inches in diameter, measured as aforesaid, and the diameter of the largest slice does not exceed the diameter of the smallest slice by more than 50 percent of the diameter of the smallest slice.

(4) *Diced beets.* The units are practically uniform in size and shape with edges measuring not more than ⅜ inch; and the aggregate weight of the units which are smaller than one-half of a cube and of all large and irregular units does not exceed 15 percent of the weight of all units.

(5) *Julienne, French style, or shoestring.* The strips of beets are practically uniform in size and shape, with cross sections measuring not more than 3/16 inch, and the aggregate weight of all strips less than 1½ inches in length does not exceed 25 percent of the weight of all the strips.

(6) *Cut.* The individual units weigh not less than ¼ ounce nor more than 2 ounces each and the largest unit weighs not more than four times the weight of the smallest unit. An occasional unit which is not representative of the general size of all the units is excluded in determining size variation.

(b) *(C) classification.* If the canned beets are fairly uniform in size and shape, a score of 8 to 11 points may be given. "Fairly uniform in size and shape" has the following meanings with respect to the various styles of canned beets:

(1) *Whole beets.* The size of the individual beet is not more than 2½ inches in diameter, measured as aforesaid; the beets may vary considerably in shape, and the diameter of the largest beet is not more than twice the diameter of the smallest beet.

(2) *Quartered beets.* The beets from which the quarters have been cut were of a size not more than 3½ inches in diameter, measured as aforesaid, and the weight of the largest quarter is not more than twice the weight of the smallest quarter.

(3) *Sliced beets.* The individual slice is not more than ⅜ inch in thickness when measured at the thickest portion; the size of each slice is not more than 3½ inches in diameter, measured as aforesaid; and the diameter of the largest slice is not more than twice the diameter of the smallest slice.

(4) *Diced beets.* The units are fairly uniform in size and shape, with edges measuring not more than ½ inch; and the aggregate weight of all units which are smaller than one-half of a cube and all large and irregular units does not exceed 25 percent of the weight of all units.

(5) *Julienne, French style, or shoestring.* The strips of beets are fairly uniform in size and shape, with cross sections measuring not more than 3/16 inch and the aggregate weight of all strips less than 1½ inches in length does not exceed 40 percent of the weight of all the strips.

(6) *Cut.* The individual units weigh not less than ⅛ ounce nor more than 3 ounces each and the largest unit weighs not more than twelve times the weight of the smallest unit. An occasional unit which is not representative of the general size of all the units is excluded in determining size variation.

(c) *(SStd) classification.* Canned beets that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 7 points and shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.532 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from defective units. Defective units are slabs, units damaged by mechanical injury, units blemished by brown or black internal or external discoloration, pathological injury or insect injury and units blemished by other means.

(1) "Slab" means any portion of a whole beet obtained in slicing that possesses only one cut surface or cut surfaces of unequal areas varying in diameter more than ½ inch.

(2) "Damaged by mechanical injury" means crushed, broken, or cracked units, units with excessively frayed edges and surfaces, units with unpeeled areas, excessively trimmed units, or damaged by other means.

(3) "Blemished" means any blemish affecting an aggregate area greater than the area of a circle 3/16 inch in diameter or any blemish which seriously affects the appearance or eating quality of the unit.

(b) *(A) classification.* Canned beets that are practically free from defects may be given a score of 26 to 30 points. "Practically free from defects" has the following meanings with respect to the various styles of canned beets:

(1) *Whole beets.* The aggregate weight of all defective units does not exceed 15 percent of the weight of all the units, and of such 15 percent not more than one-half thereof or one beet, whichever weighs more, may consist of blemished units.

(2) *Sliced, quartered, and cut beets.* The aggregate weight of all blemished units and units damaged by mechanical injury does not exceed 15 percent of the weight of all the units, and of such 15 percent not more than one-half thereof or one slice, quarter or cut, whichever weighs more, may consist of blemished units, and with respect to sliced beets not more than 10 percent of the weight of all the units may consist of units that are slabs.

(3) *Diced, Julienne, French style, or shoestring beets.* The aggregate weight of all defective units does not exceed 10 percent of the weight of all the units, and of such 10 percent not more than one-half thereof may consist of blemished units.

(c) *(C) classification.* Canned beets that are fairly free from defects may be given a score of 22 to 25 points. Canned beets that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meanings with respect to the various styles of canned beets:

(1) *Whole beets.* The aggregate weight of all defective units does not exceed 30 percent of the weight of all the units, and of such 30 percent not more than one-half may consist of blemished units.

(2) *Sliced, quartered, and cut beets.* The aggregate weight of all blemished units and units damaged by mechanical injury does not exceed 30 percent of the weight of all the units, and of such 30 percent not more than one-half thereof may consist of blemished units, and with respect to sliced beets not more than 25 percent of the weight of all the units may consist of units that are slabs.

(3) *Diced, Julienne, French style, or shoestring beets.* The aggregate weight of all defective units does not exceed 25 percent of the weight of all the units, and of such 25 percent not more than one-half thereof may consist of blemished units.

(d) *(SStd) classification.* Canned beets that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.533 *Texture.* The factor of texture refers to the tenderness of the beets, and the degree of freedom from stringy or coarse fibers.

(a) *(A) classification.* Canned beets that possess a tender texture may be given a score of 26 to 30 points. "Tender texture" means that the beets are tender, not fibrous, and possess a uniform character.

(b) *(C) classification.* If the canned beets possess a fairly tender texture, a score of 22 to 25 points may be given. Canned beets that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender texture" means that the beets are fairly tender, may be variable in character but not tough or hard, and may possess a few stringy or coarse fibers.

(c) *(SStd) classification.* Canned beets that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.534 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned beets, the grade for such lot will be determined by averaging the total scores of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total

scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.535 *Score sheet for canned beets.*

Container size	------
Container code or marking	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight (ounces)	------
Style	------
Size of whole beets (count)	------
Size of sliced beets (diameter)	------

Factors	Score points		
Color	25	(A) 21-25 (C) [1]18-20 (SStd.) [1]0-17	
Uniformity of size and shape.	15	(A) 12-15 (C) 8-11 (SStd.) [1]0-7	
Absence of defects	30	(A) 26-30 (C) [1]22-25 (SStd.) [1]0-21	
Texture	30	(A) 26-30 (C) [1]22-25 (SStd.) [1]0-21	
Total score	100		

Normal flavor and odor	------
Grade	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED BLACKBERRIES AND OTHER SIMILAR BERRIES SUCH AS BOYSENBERRIES, DEWBERRIES, AND LOGANBERRIES[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.551 *Product description.* "Canned blackberries" and other similar berries such as "boysenberries," "dewberries," and "loganberries," hereinafter called berries means the canned product prepared from stemmed, properly ripened sound, fresh fruit by proper cleaning and sorting and may be packed with or without the addition of water or sweetening ingredient in hermetically sealed containers and sufficiently processed by heat to assure preservation of the product.

§ 52.552 *Grades of canned berries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned berries that possess similar varietal characteristics; that possess a good color; that are practically uniform in size; that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and that for these factors which are scored in accordance with the scoring system outlined in this subpart, the total score is not less than 90 points: *Provided,* That the canned berries may possess a reasonably good color and may be reasonably uniform in size if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned berries that possess similar varietal characteristics; that possess a reasonably good color; that are reasonably uniform in size; that are reasonably free from defects; that possess a reasonably good character; that possess a normal flavor and odor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart, the total score is not less than 80 points: *Provided,* That the canned berries may be fairly uniform in size if the total score is not less than 80 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned berries that possess similar varietal characteristics; that possess a fairly good color; that may be fairly uniform in size; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that when scored in accordance with the scoring system outlined in this subpart, the total score is not less than 70 points.

(d) "Substandard" is the quality of canned berries that fail to meet the requirements of U. S. Grade C or U. S. Standard.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.553 *Recommended liquid media and Brix measurements for canned berries.* "Cut-out" requirements for liquid media in canned berries are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purpose of these grades. The recommended "cut-out" Brix measurement, as applicable, for the respective designations are as follows:

Designations and Brix Measurements

"Extra heavy sirup": 24° or more, but not more than 35° Brix.

"Heavy sirup": 19° or more, but less than 24° Brix.

"Light sirup": 14° or more, but less than 19° Brix.

"Slightly sweetened water": Less than 14° Brix.

"In water": Packed in water.

§ 52.554 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned berries be filled with berries as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

§ 52.555 *Recommended minimum drained weight.* The minimum drained weight recommendations are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned berries is determined by emptying the contents upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937 inch ± 3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight (or drained berries) is the weight of the sieve and the berries less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

§ 52.556 *Compliance with recommended drained weights.* Compliance with the recommended drained weights for canned berries is determined by averaging the drained weights from all containers which are representative of a specific lot and such lot is considered as meeting the recommendations, if: The average drained weight from all the containers meets the recommended drained weight; one-half or more of the containers meet the recommended drained weight; and the drained weights from the containers which do not meet the recommended drained weight are within the range of variability for good commercial practices.

TABLE NO. 1—RECOMMENDED MINIMUM DRAINED WEIGHT, IN OUNCES, OF CANNED BERRIES

Can size	Can dimensions (in inches)		Maximum capacity in water at 68° F. (in ounces)	Blackberries		Other berries	
	Diameter	Height		Extra heavy and heavy sirup	Light sirup and water	Extra heavy and heavy sirup	Light sirup and water
8 ounces	2 11/16	3 4/16	8.65	4½	4¾	4¼	4¼
No. 303	3 3/16	4 6/16	16.85	9¼	9¾	7¾	8¼
No. 2	3 7/16	4 9/16	20.50	11¼	12¼	9½	10
No. 10	6 3/16	7	109.45	63	70	55	60
No. 10[1] (heavy pack)	6 3/16	7	109.45	---------	74	---------	70

[1] Canned blackberries in No. 10 containers (in water) may be certified with the additional statement "heavy pack," provided they meet a minimum drained weight requirement of 74 ounces per can.

FACTORS OF QUALITY

§ 52.557 *Ascertaining the grade.* (a) The grade of canned berries is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size, absence of defects and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Factors:	*Points*
Color	20
Uniformity of size	20
Absence of defects	30
Character of fruit	30
Total score	100

(c) "Normal flavor and odor" means that the product is free from objectionable odors and objectionable flavors of any kind.

§ 52.558 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "22 to 25 points" means 22, 23, 24, or 25 points).

§ 52.559 *Color.* The factor of color refers to the color typical of the varietal group and to the intensity and brightness of such characteristic color.

(a) *(A) classification.* Canned berries that possess a good color may be given a score of 18 to 20 points. "Good color" means that the canned berries possess a color typical of well-ripened berries for the varietal type that have been properly processed and are practically uniform and bright in color.

(b) *(B) classification.* If the canned berries possess a reasonably good color, a score of 16 or 17 points may be given. "Reasonably good color" means that the canned berries possess a color typical of reasonably well-ripened berries for the varietal type that have been properly processed, and which color may be somewhat lacking in luster and may range in color from the lighter shades of reasonably well-ripened berries to the darker hues of well-ripened berries.

(c) *(C) classification.* If the canned berries possess a fairly good color, a score of 14 or 15 points may be allowed. Canned berries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned berries possess a color typical of fairly well-ripened berries for the varietal type that have been properly processed, and which color may be variable but is not off-color.

(d) *(SStd) classification.* Canned berries that fail to meet the requirements of paragraph (c) of this section, may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.560 *Uniformity of size*—(a) *General.* The factor of uniformity of size refers to the uniformity of diameters of the canned berries. "Diameter" is the minimum diameter of the fruit of the berry measured at right angles to the stem axis that will pass through a rigid ring of the same diameter without using pressure.

(b) *(A) classification.* If the canned berries are practically uniform in size, a score of 18 to 20 points may be given. "Practically uniform in size" means that the variation in size of the berries does not materially affect the appearance of the product and that with respect to canned blackberries, not more than 15 percent, by count, of the blackberries are less than $^{20}/_{32}$ inch in diameter.

(c) *(B) classification.* If the canned berries are reasonably uniform in size, a score of 16 or 17 points may be given. "Reasonably uniform in size" means that the variation in size of the berries does not seriously affect the appearance of the product and that with respect to canned blackberries, not more than 15 percent, by count, of the blackberries are less than $^{18}/_{32}$ inch in diameter.

(d) *(C) classification.* If the canned berries are fairly uniform in size, a score of 14 or 15 points may be given. Canned berries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly uniform in size" means that the canned berries may be variable in size and that with respect to canned blackberries more than 15 percent, by count, are less than $^{18}/_{32}$ inch in diameter.

§ 52.561 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous vegetable material and from damaged berries.

(1) "Harmless extraneous vegetable material" means any vegetable substance (including, but not limited to, leaves, stems, or portions of stems, whether or not attached, caps or portions of caps, whether or not attached).

(2) "Damaged" means any surface blemish or internal injury that materially affects the appearance or edibility of the berry (including, but not limited to, insect injury, pathological injury, hard berries, underdeveloped berries, and abnormally developed berries).

(b) *(A) classification.* Canned berries that are practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that harmless extraneous vegetable material may be present that does not more than slightly affect the appearance or edibility of the product; and that not more than 4 percent, by count, of the canned berries may be damaged.

(c) *(B) classification.* If the canned berries are reasonably free from defects, a score of 24 to 26 points may be given. Canned berries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that harmless extraneous vegetable material may be present that does not more than materially affect the appearance or edibility of the product; and that not more than 8 percent, by count, of the canned berries may be damaged.

(d) *(C) classification.* Canned berries that are fairly free from defects may be given a score of 21 to 23 points. Canned berries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that harmless extraneous vegetable material may be present that does not more than seriously affect the appearance or edibility of the product; and that not more than 15 percent, by count, of the canned berries may be damaged.

(e) *(SStd) classification.* Canned berries which fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.562 *Character of fruit*—(a) *General.* The factor of character refers to the degree of texture, and appearance as well as to the degree of disintegration of the berries.

(1) A berry is considered "crushed" if more than 50 percent of the drupelets are crushed, broken or detached, or if the normal shape of the berry is otherwise materially affected or destroyed.

(b) *(A) classification.* Canned berries that possess a good character may be given a score of 27 to 30 points. "Good character" means that the berries possess a firm, tender texture characteristic of well-ripened berries for the varietal type and are practically intact; that the berries and accompanying liquor are practically free from detached seed cells; and that not more than 5 percent, by weight, of the blackberries may be crushed and not more than 10 percent, by weight, of dewberries, boysenberries, loganberries, or other similar types may be crushed.

(c) *(B) classification.* If the canned berries have a reasonably good character, a score of 24 to 26 points may be given. Canned berries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the berries may possess a reasonably tender texture characteristic of reasonably well-ripened berries to slightly over-ripe berries for the varietal type and are reasonably intact; that the berries and accompanying liquor are reasonably free from detached seed cells; and that not more than 10 percent by weight, of blackberries may be crushed and not more than 15 percent, by weight, of dewberries, boysenberries, loganberries, or other similar types may be crushed.

(d) *(C) classification.* Canned berries that possess a fairly good character may be given a score of 21 to 23 points. Canned berries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the berries may possess a fairly tender texture characteristic of fairly well-ripened berries to over-ripe berries for the varietal type and are fairly intact; and that not more than 20 percent, by weight, of the berries may be crushed.

(e) *(SStd) classification.* Canned berries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.563 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned blackberries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.564 *Score sheet for canned berries.*

Can size			----
Can mark			----
Label			----
Net weight (in ounces)			----
Vacuum readings (in inches)			----
Drained weight (in ounces)			----
Degree of sirup (Brix)			----
Factors			
Color	20	(A) 18-20 (B) 16-17 (C) [1]14-15 (SStd.) [1] 0-13	
Uniformity of size	20	(A) 18-20 (B) 16-17 (C) [1]14-15	
Absence of defects	30	(A) 27-30 (B) [1]24-26 (C) [1]21-23 (SStd.) [1]0-20	
Character of fruit	30	(A) 27-30 (B) [1]24-26 (C) [1]21-23 (SStd.) [1]0-20	
Total score	100	----------------	
Grade			----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED BLUEBERRIES [1]

PRODUCT DESCRIPTION, TYPES, AND GRADES

§ 52.581 *Product description.* Canned blueberries are prepared from the properly ripened fresh fruit of the blueberry bush (Genus Vaccinium), including species or varieties often called "huckleberries", but not of the Genus Gaylussacia; are stemmed and washed; are packed with or without the addition of water or sweetening ingredients; and are sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.582 *Types of canned blueberries.* (a) Native (or wild) type.

(b) Cultivated type.

§ 52.583 *Grades of canned blueberries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned blueberries that possess similar varietal characteristics; that possess a very good color; that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and that score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned blueberries that possess similar varietal characteristics; that possess a good color; that are reasonably free from defects; that possess a reasonably good character; that possess a normal flavor and odor; and that score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned blueberries that possess similar varietal characteristics; that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of canned blueberries that fail to meet the requirements of U. S. Grade C or U. S. Standard.

LIQUID MEDIA, FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.584 *Recommended designations of liquid media and Brix measurements.* "Cut-out" requirements for liquid media are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purpose of these grades.

(a) It is recommended that canned blueberries have the following indicated "cut-out" Brix measurement for the respective designation, which designations include, but are not limited to, the following:

Designations	*Brix measurement*
Extra heavy sirup	25° or more, but not more than 35°.
Heavy sirup	20° or more, but less than 25°.
Light sirup	15° or more, but less than 20°.
Slightly sweetened water.	Less than 15° Brix.
Water pack (packed in water).	------------------

(b) "Brix" means the degrees Brix of the liquid from canned blueberries when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If the liquid is tested at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in the "Official Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of the liquid from canned blueberries may be determined by any other method which gives equivalent results.

§ 52.585 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned blueberries be filled with blueberries as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

§ 52.586 *Recommended minimum drained weight.* The minimum drained weight recommendations are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned blueberries is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch, ±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight (or drained blueberries) is the weight of the sieve and the blueberries less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR CANNED BLUEBERRIES

Container designation	Container size (over-all dimensions)		Recommended minimum drained weight
	Width	Height	
	Inches	*Inches*	*Ounces*
300 x 407	3	4 7/16	8
No. 2	3 7/16	4 9/16	10¾
No. 10	6 3/16	7	58

FACTORS OF QUALITY

§ 52.587 *Ascertaining the grade.* (a) The grade of canned blueberries may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) "Normal flavor and odor" means that the product is free from objectionable odors and objectionable flavors of any kind.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.588 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.589 *Color*—(a) *(A) classification.* Canned blueberries that possess a very good color may be given a score of 18 to 20 points. "Very good color" means a practically uniform, bright, dark blue-purple color typical of blueberries which had been properly processed from well-matured blueberries.

(b) *(B) classification.* If the canned blueberries possess a good color, a score of 16 or 17 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good color" means a reasonably uniform, dark blue-purple color typical of blueberries which had been properly processed from reasonably well-matured blueberries.

(c) *(C) classification.* If the canned blueberries possess a fairly good color, a score of 14 or 15 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means a blue-purple color typical of blueberries which had been properly processed and which are not off color for any reason.

(d) *(SStd) classification.* Canned blueberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.590 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material (such as leaves and large stems); from clusters; from cap stems; from undeveloped berries, or edible berries other than blueberries; and from berries damaged by insect, pathological, or any other injury.

(1) "Cap stems" are small stems which attach berries to the branch and means single cap stems or joined double cap stems with or without berries attached.

(2) A "cluster" means three or more joined cap stems with or without berries attached.

(3) "Undeveloped berries" are mummified berries with wrinkled or tough skins or which may be pathologically defective.

(b) *(A) classification.* Canned blueberries that are practically free from defects may be given a score of 36 to 40 points. "Practically free from defects" means that the canned blueberries are reasonably free from cap stems and for each 20 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 2 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed ½ square inch;

(2) Not more than 5 berries that are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In native (or wild) type, not more than an average of 12 clusters in all containers comprising the sample, provided there are no more than 16 clusters in any single container; or

(4) In cultivated type, not more than 4 clusters.

(c) *(B) classification.* If the canned blueberries are reasonably free from defects, a score of 32 to 35 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the canned blueberries are reasonably free from cap stems and for each 20 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 4 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed ¾ square inch;

(2) Not more than 8 berries that are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In Native (or wild) type, not more than an average of 20 clusters in all containers comprising the sample, provided there are no more than 28 clusters in any single container; or

(4) In Cultivated type, not more than 8 clusters.

(d) *(C) classification.* If the canned blueberries are fairly free from defects, a score of 28 to 31 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned blueberries are fairly free from cap stems and for each 20 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 6 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed 1 square inch;

(2) Not more than 10 berries that are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In Native (or wild) type, not more than an average of 28 clusters in all containers comprising the sample, provided there are no more than 40 clusters in any single container; or

(4) In Cultivated type, not more than 12 clusters.

(e) *(SStd) classification.* Canned blueberries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.591 *Character*—(a) *(A) classification.* Canned blueberries that possess a good character may be given a score of 36 to 40 points. "Good character" means that the blueberries are reasonably firm, reasonably fleshy, practically whole, and practically intact with not more than 10 percent by weight of the drained blueberries that may be crushed, mushy, or broken berries.

(b) *(B) classification.* If the canned blueberries possess a reasonably good character, a score of 32 to 35 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the blueberries may be lacking in firmness and fleshy texture but are reasonably whole and reasonably intact with not more than 15 percent by weight of the drained blueberries that may be crushed, mushy, or broken berries.

(c) *(C) classification.* If the canned blueberries possess a fairly good character, a score of 28 to 31 points may be given. Canned blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the blueberries are fairly whole and fairly intact with not more than 30 percent by weight of the drained blueberries that may be crushed, mushy, or broken berries.

(d) *(SStd) classification.* Canned blueberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.592 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned blueberries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.593 *Score sheet for canned blueberries.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight (ounces)	------
Brix measurement	------
Sirup designation (extra heavy, heavy, etc.)	------
Type	------

Factors	Score points		
Color	20	(A) 18-20 (B) [1] 16-17 (C) [1] 14-15 (D) [1] 0-13	
Absence of defects	40	(A) 36-40 (B) [1] 32-35 (C) [1] 28-31 (D) [1] 0-27	
Character	40	(A) 36-40 (B) [1] 32-35 (C) [1] 28-31 (D) [1] 0-27	
Total score	100		

Flavor and odor	------
Grade	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN BLUEBERRIES [1]

PRODUCT DESCRIPTION, TYPES, AND GRADES

§ 52.611 *Products description.* Frozen blueberries are prepared from the properly ripened fresh fruit of the blueberry bush (Genus Vaccinium), including species or varieties often called "huckleberries," but not of the Genus Gaylussacia; are cleaned and stemmed; may or may not be washed; are packed with or without packing media; and are frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.612 *Types of frozen blueberries.* (a) Native (or wild) type.

(b) Cultivated type.

§ 52.613 *Grades of frozen blueberries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen blueberries that possess similar varietal characteristics; that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and are of such quality with respect to color as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen blueberries that possess similar varietal characteristics; that possess a good color; that are reasonably free from defects; that possess a reasonably good character; that possess a normal flavor and odor; and that score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of frozen blueberries that possess similar varietal characteristics; that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of frozen blueberries that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FACTORS OF QUALITY

§ 52.614 *Ascertaining the grade.* (a) The grade of frozen blueberries may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The scores for the factors of color, absence of defects, and character of frozen blueberries are determined when the product is sufficiently free from ice crystals to permit handling of the blueberries.

(d) "Normal flavor and odor" means that the product is free from objectionable flavors and objectionable odors of any kind.

§ 52.615 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.616 *Color*—(a) *(A) classification.* Frozen blueberries that possess a very good color may be given a score of 18 to 20 points. "Very good color" means that the blueberries possess a practically uniform, bright, dark blue-purple color typical of properly matured berries for the variety and that there may be present not more than 5 percent by count of berries that possess a red-purple color. Frozen blueberries that are undercolored (not at least red-purple color) or that have a definite green cast are considered "green berries." (See § 52.617 (a).)

(b) *(B) classification.* If the frozen blueberries possess a good color, a score of 16 or 17 points may be given. "Good color" means that the blueberries possess a reasonably uniform, dark blue-purple color typical of reasonably well-matured berries for the variety and that there may be present not more than 10 percent by count of berries that possess a red-purple color. Frozen blueberries that are under-colored (not at least red-purple color) or that have a definite green cast are considered "green berries." (See § 52.617 (a).)

(c) *(C) classification.* If the frozen blueberries possess a fairly good color, a score of 14 or 15 points may be given. Frozen blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the blueberries may be moderately variable in color, but are not definitely dull or off color, and there may be present not more than 20 percent by count of berries that possess a red-purple color. Frozen blue berries that are undercolored (not at least red-purple color) or that have a definite green cast are considered "green berries." (See § 52.617 (a).)

(d) *(SStd) classification.* Frozen blueberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.617 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material (such as leaves and large stems); from clusters; from cap stems; from green berries, undeveloped berries, or edible berries other than blueberries; and from berries damaged by insect, pathological, or any other injury.

(1) "Green berries" are blueberries that are undercolored and do not possess at least a red-purple color or that have a definite green cast, even though the over-all color of the berries may not be a true green color.

(2) "Cap stems" are small stems which attach berries to the branch and means single cap stems or joined double cap stems with or without berries attached.

(3) A "cluster" means three or more joined cap stems with or without berries attached.

(4) "Undeveloped berries" are mummified berries with wrinkled or tough skins or which may be pathologically defective.

(b) *(A) classification.* Frozen blueberries that are practically free from defects may be given a score of 36 to 40 points. "Practically free from defects" means that the frozen blueberries are reasonably free from cap stems and for each 16 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 2 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed ½ square inch;

(2) Not more than a total of 10 berries that are green or undeveloped or edible berries other than blueberries or berries that are damaged, provided not more than 5 berries are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In Native (or wild) type, not more than an average of 12 clusters in all samples or containers comprising the sample, provided there are no more than 16 clusters in any single sample or in any single container; or

(4) In Cultivated type, not more than 4 clusters.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) (*B*) *classification.* If the frozen blueberries are reasonably free from defects, a score of 32 to 35 points may be given. Frozen blueberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the frozen blueberries are reasonably free from cap stems and for each 16 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 4 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed ¾ square inch;

(2) Not more than a total of 16 berries that are green or undeveloped or edible berries other than blueberries or berries that are damaged, provided not more than 8 berries are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In Native (or wild) type, not more than an average of 20 clusters in all samples or containers comprising the sample, provided there are no more than 28 clusters in any single sample or in any single container; or

(4) In Cultivated type, not more than 8 clusters.

(d) (*C*) *classification.* If the frozen blueberries are fairly free from defects, a score of 28 to 31 points may be given. Frozen blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the frozen blueberries are fairly free from cap stems and for each 16 ounces of net weight, or the equivalent thereof, there may be present:

(1) Not more than a total of 6 whole leaves or large stems, provided such whole leaves and any other portions of leafy material do not exceed 1 square inch;

(2) Not more than a total of 20 berries that are green or undeveloped or edible berries other than blueberries or berries that are damaged, provided not more than 10 berries are undeveloped or edible berries other than blueberries or berries that are damaged; and

(3) In Native (or wild) type, not more than an average of 28 clusters in all samples or containers comprising the sample, provided there are no more than 40 clusters in any single sample or in any single container; or

(4) In Cultivated type, not more than 12 clusters.

(e) (*SStd*) *classification.* Frozen blueberries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.618 *Character*—(a) (*A*) *classification.* Frozen blueberries that possess a good character may be given a score of 36 to 40 points. "Good character" means that the blueberries are reasonably firm, reasonably fleshy, practically whole, and practically intact with not more than 6 percent by weight of berries that may be crushed, mushy, or broken.

(b) (*B*) *classification.* If the frozen blueberries possess a reasonably good character, a score of 32 to 35 points may be given. Frozen blueberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the blueberries may be lacking in firmness and fleshy texture but are reasonably whole and reasonably intact with not more than 10 percent by weight of berries that may be crushed, mushy, or broken.

(c) (*C*) *classification.* If the frozen blueberries possess a fairly good character, a score of 28 to 31 points may be given. Frozen blueberries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the blueberries are fairly whole and fairly intact with not more than 20 percent by weight of berries that may be crushed, mushy, or broken.

(d) (*SStd*) *classification.* Frozen blueberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.619 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen blueberries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.620 *Score sheet for frozen blueberries.*

Size and kind of container			
Container mark or identification			
Label (style of pack—Ratio of fruit to sugar, tc., if shown)			
Net weight (ounces)			
Type			
Factors	Score points		
Color	20	(A) 18–20 (B) 16–17 (C)[1] 14–15 (D)[1] 0–13	
Absence of defects	40	(A) 36–40 (B)[1] 32–35 (C)[1] 28–31 (D)[1] 0–27	
Character	40	(A) 36–40 (B)[1] 32–35 (C)[1] 28–31 (D)[1] 0–27	
Total score	100		
Flavor and odor			
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN BROCCOLI[1]

PRODUCT DESCRIPTION, STYLES AND GRADES

§ 52.631 *Product description.* "Frozen broccoli" is prepared from the fresh, headed stalks or shoots of the broccoli plant (Brassica oleracea botrytis) by trimming, washing, and blanching and is frozen and stored at temperatures necessary for preservation of the product.

§ 52.632 *Styles of frozen broccoli.* (a) "Stalks" is the style that consists of the head and adjoining portions of the stem and attached leaves. Stalks that are cut longitudinally (including, but not limited to, quarters or halves) are considered as this style.

(b) "Cuts" or "Cut Broccoli" is the style that consists of portions cut from stalks with not less than 35 percent by weight of the broccoli that is head material.[2] "Head material" consists of buds or bud clusters whether or not attached to stalks or portions of stalks and includes such stalks or portions thereof. Units that possess practically no buds are not considered as head material.

(c) "Pieces" is the style that consists of any cut portions of stalks and that does not meet the foregoing definition for "Cuts" or "Cut Broccoli".

§ 52.633 *Grades of frozen broccoli.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen broccoli that possesses similar varietal characteristics; that possesses a good color; that is practically free from defects; that possesses good character; that possesses a good flavor and odor; and is of such quality with respect to uniformity of size as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen broccoli that possesses similar varietal characteristics; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and is of such quality with respect to uniformity of size as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] The amount of head material is determined by averaging the weight of the head material from all containers comprising the sample, provided no single container contains less than 25 percent by weight of head material.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen broccoli that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.634 *Ascertaining the grade.* (a) The grade of frozen broccoli may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given for such factors are:

Factors:	*Points*
Color	20
Uniformity of size	20
Absence of defects	20
Character	40
Total score	100

(c) The scores for the factors of color, uniformity of size, absence of defects, and character with respect to development are determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. The degree of tenderness and freedom from fiber and flavor and odor are determined after the product is cooked.

(d) "Good flavor and odor" means that the product after cooking has a good, characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.635 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.636 *Color*—(a) *(A) classification.* Frozen broccoli that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the frozen broccoli possesses a characteristic green color which may include lighter colored areas typical of young and tender broccoli that do not materially affect the appearance of the product.

(b) *(B) classification.* If the frozen broccoli possesses a reasonably good color, a score of 14 to 16 points may be given. Frozen broccoli that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen broccoli possesses a characteristic green color which may be variable but is not off color.

(c) *(SStd) classification.* Frozen broccoli that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.637 *Uniformity of size*—(a) *General.* "Diameter" of a stalk, whether or not cut longitudinally means the greatest crosswise dimension measured 1 inch above the lowest portion of the main stem of the stalk at approximate right angles to the length.

(b) *(A) classification.* Frozen broccoli that is practically uniform in size may be given a score of 17 to 20 points. "Practically uniform in size" has the following meanings with respect to the following styles:

(1) *Stalks.* The longest stalk does not exceed the shortest stalk by more than 2 inches and in the 90 percent, by count, of stalks which have the most uniform lengths, the length of the longest stalk does not exceed the length of the shortest stalk by more than 1 inch; and the diameter of the stalk with the greatest diameter does not exceed the diameter of the stalk with the shortest diameter by more than 1 inch and in the 90 percent, by count, of stalks which have the most uniform diameters, the diameter of the stalk with the greatest diameter does not exceed the diameter of the stalk with the shortest diameter by more than ¾ inch.

(2) *Cuts; pieces.* Not more than 5 percent, by weight, of the units may be longer than 2 inches.

(c) *(B) classification.* If the frozen broccoli is reasonably uniform in size, a score of 14 to 16 points may be given. "Reasonably uniform in size" has the following meanings with respect to the following styles:

(1) *Stalks.* In the 90 percent, by count, of stalks which have the most uniform lengths, the length of the longest stalk does not exceed the length of the shortest stalk by more than 2 inches; and in the 90 percent, by count, of stalks which have the most uniform diameters, the diameter of the stalk with the greatest diameter does not exceed the diameter of the stalk with the shortest diameter by more than ¾ inch.

(2) *Cuts; pieces.* Not more than 10 percent, by weight, of the units may be longer than 2½ inches.

(d) *(SStd) classification.* Frozen broccoli that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.638 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, harmless extraneous materials, detached fragments, loose leaves, loose pieces of leaves, and poorly trimmed stalks; and from units that are damaged or seriously damaged.

(1) "Grit" means sand or other rough, hard particles of earthy sediment.

(2) "Harmless extraneous material" means vegetable substances other than broccoli, such as weeds and grass and any portions thereof, that are harmless.

(3) "Loose leaves and loose pieces of leaves" means leaves or pieces of leaves not attached to a unit.

(4) "Detached fragments" means any detached portions of stalks including bud clusters, shattered materials, portions of stems without bud clusters regardless of size or length, and portions of stems with bud clusters, which portions are 2 inches or less in the greatest straight dimension.

(5) "Poorly trimmed" means that the appearance of the stalk is seriously affected by attached leaves and by ragged or partial trimming of the leaves, by ragged or partial removal of leaves, and poor cutting of the stem of the stalk.

(6) "Damaged" means discoloration, mechanical injury, pathological injury, insect injury, hollow stems, pithy stems, or other injuries which, singly or in combination, on a unit or in a unit materially affect the appearance or eating quality of the unit.

(7) "Seriously damaged" means damage to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) *(A) classification.* Frozen broccoli that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" has the following meanings with respect to the following styles:

(1) *Stalks.* No grit that affects the appearance or eating quality may be present; not more than one piece of harmless extraneous material may be present for each 20 ounces of net weight; detached fragments, loose leaves, and loose pieces of leaves that do not materially affect the appearance may be present; and stalks that are poorly trimmed, damaged, or seriously damaged do not exceed 10 percent, by count, of all the stalks, but of such 10 percent, not more than one-half thereof, or not more than 5 percent by count of all the stalks, may be seriously damaged. One stalk in a single container is permitted to be poorly trimmed, damaged, or seriously damaged if such stalk exceeds the respective allowances of 10 percent or 5 percent, provided that in all containers comprising the sample such poorly trimmed, damaged, or seriously damaged stalks do not exceed an average of 10 percent, by count, but of such 10 percent average, not more than one-half thereof, or not more than an average of 5 percent, may be seriously damaged.

(2) *Cuts; pieces.* No grit that affects the appearance or eating quality may be present; not more than one piece of harmless extraneous material may be present for each 20 ounces of net weight; loose leaves and loose pieces of leaves that do not materially affect the appearance may be present; and units that are damaged or seriously damaged do not exceed 8 percent, by weight, but of such 8 percent not more than one-half thereof, or not more than 4 percent, by weight, of all the units, may be seriously damaged.

(c) *(B) classification.* If the frozen broccoli is reasonably free from defects, a score of 14 to 16 points may be given.

Frozen broccoli that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meanings with respect to the following styles:

(1) *Stalks.* No grit that affects the appearance or eating quality may be present; not more than two pieces of harmless extraneous material may be present for each 20 ounces of net weight; detached fragments, loose leaves, and loose pieces of leaves that do not materially affect the appearance may be present; and stalks that are poorly trimmed, damaged, or seriously damaged do not exceed 20 percent, by count, of all the stalks, but of such 20 percent, not more than one-half thereof, or not more than 10 percent, by count, of all the stalks, may be seriously damaged.

(2) *Cuts; pieces.* No grit that affects the appearance or eating quality may be present; not more than two pieces of harmless extraneous material may be present for each 20 ounces of net weight, loose leaves and loose pieces of leaves that do not materially affect the appearance may be present; and units that are damaged or seriously damaged do not exceed 16 percent, by weight, but of such 16 percent, not more than one-half thereof, or not more than 8 percent, by weight, of all the units, may be seriously damaged.

(d) *(SStd) classification.* Frozen broccoli that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.639 *Character*—(a) *General.* The factor of character refers to the degree of development and tenderness and to the degree of freedom from stringy, fibrous development.

(1) "Well developed" means that the branching bud clusters of the unit form a practically compact head, that the individual buds in the bud clusters are all practically closed, and that the immediate stems supporting the individual buds in the bud clusters show no more than slight elongation.

(2) "Reasonably well developed" means that the branching bud clusters of the unit may be spread or spreading; that the individual buds in the bud clusters may have reached a moderate stage of enlargement but practically none of the buds are in the flowered or open stage; and that the immediate stems supporting the individual buds in the bud clusters may be moderately elongated.

(3) After the broccoli has been tested for development, the broccoli is cooked before making the determination for the degree of tenderness and the degree of freedom from fibrous development.

(b) *(A) classification.* Frozen broccoli that possesses a good character may be given a score of 34 to 40 points. "Good character" has the following meanings with respect to the following styles:

(1) *Stalks.* Not less than 80 percent, by count, of the stalks are well developed and the remainder are reasonably well developed; and all of the stalks are tender.

(2) *Cuts; pieces.* The units are at least reasonably well developed; and the broccoli is tender.

(c) *(B) classification.* If the frozen broccoli possesses a reasonably good character, 28 to 33 points may be given. Frozen broccoli that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" has the following meanings with respect to the following styles:

(1) *Stalks.* Not less than 90 percent, by count, of the stalks are at least reasonably well developed; the stalks are reasonably tender and practically free from stringy, fibrous development.

(2) *Cuts; pieces.* Not less than 95 percent, by weight, of the bud clusters of the units are at least reasonably well developed; the broccoli is reasonably tender and practically free from stringy, fibrous development.

(d) *(SStd) classification.* Frozen broccoli that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.640 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen broccoli, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.641 *Score sheet for frozen broccoli.*

Size and kind of container			
Container mark or identification			
Label			
Net weight (ounces)			
Style			
Count (of stalks)			
Factors	Score points		
Color	20	(A) 17-20 (B) [1] 14-16 (D) [1] 0-13	
Uniformity of size	20	(A) 17-20 (B) 14-16 (D) [1] 0-13	
Absence of defects	20	(A) 17-20 (B) [1] 14-16 (D) [1] 0-13	
Character	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Total score	100		
Flavor and odor			
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN BRUSSELS SPROUTS[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.651 *Product description.* Frozen Brussels sprouts are prepared from the fresh heads of the Brussels sprouts plant (Brassica oleracea gemmifera) by trimming, washing, and blanching and are frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.652 *Grades of frozen Brussels sprouts.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen Brussels sprouts that possess similar varietal characteristics; that possess a good color; that are practically free from defects; that possess a good character; that possess a good flavor and odor; and that score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen Brussels sprouts that possess similar varietal characteristics; that possess a reasonably good color; that are reasonably free from defects; that possess a reasonably good character; that possess a good flavor and odor; and that score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of frozen Brussels sprouts that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that possess a fairly good flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of frozen Brussels sprouts that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FACTORS OF QUALITY

§ 52.653 *Ascertaining the grade.* (a) The grade of frozen Brussels sprouts is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Factors:	Points
Color	30
Absence of defects	40
Character	30
Total score	100

(c) The scores for the factors of color and absence of defects of Brussels sprouts are determined immediately after thawing so that the product is sufficiently free from ice crystals to permit proper handling as individual units and the product is completely thawed to determine the factor of character. The product is cooked to determine the flavor and odor.

(d) "Good flavor and odor" means that the product after cooking has a good, characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.654 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "27 to 30 points" means 27, 28, 29, or 30 points).

§ 52.655 *Color*—(a) *General.* The color of Brussels sprouts is based on the characteristic and predominating color of the outer surfaces of the Brussels sprouts.

(1) "Yellow-green" means a predominating characteristic green color with a definite yellow cast.

(2) "Yellow" means a predominating characteristic yellow color with slight tinges of green or a predominating characteristic yellow color typical of the color Brussels sprouts possess after the outer green leaves have been removed.

(b) (*A*) *classification.* Frozen Brussels sprouts that possess a good color may be given a score of 27 to 30 points. "Good color" means that not more than 5 percent, by count, of the units may be yellow and that the remainder of the units are yellow-green or more green in color. One Brussels sprout in a single container is permitted to be yellow if such unit exceeds the allowance of 5 percent.

(c) (*B*) *classification.* If the frozen Brussels sprouts possess a reasonably good color, a score of 24 to 26 points may be given. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that more than 5 percent, by count, but not more than 25 percent, by count, of the units are yellow and that the remainder of the units are yellow-green or more green in color.

(d) (*C*) *classification.* If the frozen Brussels sprouts possess a fairly good color, a score of 21 to 23 points may be given. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that more than 25 percent, by count, of the units are yellow and that the remainder, if any, are yellow-green or more green in color but are not off-color for any reason.

(e) (*SStd*) *classification.* Frozen Brussels sprouts that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.656 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, silt, harmless extraneous material, loose leaves and loose small pieces, poorly trimmed units, and from units damaged by discoloration, mechanical injury, pathological injury, insect injury, or other means.

(1) "Grit" (or sand) is rough, hard particles of earthy sediment.

(2) "Silt" is fine earthy sediment from material such as mud or clay.

(3) "Harmless extraneous material" means vegetable substances other than from Brussels sprouts, such as weeds and grass and any portion thereof, that are harmless.

(4) "Loose leaves and loose small pieces" means leaves, pieces of leaves, and small pieces of edible stalk or stems not attached to a unit, whether or not damaged.

(5) "Poorly trimmed units" means (i) that the butt end is not trimmed smoothly and closely at the approximate point of attachment of the outer leaves; or (ii) that the appearance of the unit is materially damaged from excessive cutting into the head. Brussels sprouts heads from which the leaves have been stripped, whether or not excessively, are not considered "poorly trimmed units."

(6) "Damaged" means any unit damaged by surface or internal discoloration, mechanical injury, pathological injury, insect injury, or by other means to the extent that the appearance or eating quality is materially affected.

(7) "Seriously damaged" means any unit damaged to such an extent that the appearance or eating quality is seriously affected.

(b) (*A*) *classification.* Frozen Brussels sprouts that are practically free from defects may be given a score of 36 to 40 points. "Practically free from defects" means that no grit or silt that affects the appearance or eating quality of the product is present; no harmless extraneous material is present; loose leaves and loose small pieces that do not affect the appearance or eating quality of the product may be present; and that units that are damaged or seriously damaged do not exceed 10 percent, by count, of all the units, but of such 10 percent not more than one-half thereof or not more than 5 percent, by count, of all the units may be seriously damaged; and, in addition, not more than 10 percent, by count, of all the units may be poorly trimmed.

(c) (*B*) *classification.* If the frozen Brussels sprouts are reasonably free from defects, a score of 32 to 35 points may be given. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that no grit or silt that affects the appearance or eating quality of the product is present; not more than one piece of harmless extraneous material may be present for each 20 ounces of net weight; loose leaves and loose small pieces that do not materially affect the appearance or eating quality of the product may be present; and that units that are damaged or seriously damaged do not exceed 20 percent, by count, of all the units, but of such 20 percent not more than one-half thereof or not more than 10 percent, by count, of all the units may be seriously damaged; and, in addition, not more than 15 percent, by count, of all the units may be poorly trimmed.

(d) (*C*) *classification.* Frozen Brussels sprouts that are fairly free from defects may be given a score of 28 to 31 points. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that a slight trace of grit or silt that does not affect materially the appearance or eating quality of the product may be present; not more than two pieces of harmless extraneous material may be present for each 20 ounces of net weight; loose leaves and loose small pieces that do not seriously affect the appearance or eating quality of the product may be present; and that units that are damaged, seriously damaged, or poorly trimmed do not exceed 50 percent, by count, of all the units, but of such 50 percent not more than three-tenths thereof or not more than 15 percent, by count, of all the units may be seriously damaged and of such 50 percent not more than two-fifths thereof or not more than 20 percent, by count, of the units may have butt ends that are not trimmed smoothly and closely at the approximate point of attachment of the outer leaves.

(e) (*SStd*) *classification.* Frozen Brussels sprouts that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.657 *Character*—(a) *General.* The factor of character refers to the degree of development and tenderness and texture of the Brussels sprouts heads.

(1) "Well developed" means that a Brussels sprout head is well formed, compact, and reasonably firm.

(2) "Reasonably well developed" means that a Brussels sprout head is reasonably well formed, reasonably compact, and fairly firm.

(3) "Fairly well developed" means that a Brussels sprout head is fairly well formed but may have been reduced in

size or excessively stripped by removal of leaves.

(4) "Very loose-structured" means that a Brussels sprout head is very light in weight in comparison to its size and possesses large open spaces resulting in a very spongy condition that yields easily and considerably to moderate pressure.

(b) *(A) classification.* Frozen Brussels sprouts that possess a good character may be given a score of 27 to 30 points. "Good character" means that not less than 80 percent, by count, of the units are well developed and that the remainder are reasonably well developed or fairly well developed and not more than an occasional unit may be very loose-structured.

(c) *(B) classification.* If the frozen Brussels sprouts possess a reasonably good character, a score of 24 to 26 points may be given. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that not less than 50 percent, by count, of the units are at least reasonably well developed; not more than 10 percent, by count, may be very loose-structured units; and the remainder are fairly well developed.

(d) *(C) classification.* Frozen Brussels sprouts that possess a fairly good character may be given a score of 21 to 23 points. Frozen Brussels sprouts that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that not less than 50 percent, by count, of the units are at least fairly well developed.

(e) *(SStd) classification.* Frozen Brussels sprouts that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.658 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen Brussels sprouts, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.659 *Score sheet for frozen Brussels sprouts.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Count	------

Factors	Score points		
Color	30	(A) 27-30 (B) [1]24-26 (C) [1]21-23 (D) [1] 0-20	
Absence of defects	40	(A) 36-40 (B) [1]32-35 (C) [1]28-31 (D) [1]0-27	
Character	30	(A) 27-30 (B) [1]24-26 (C) [1]21-23 (D) [1]0-20	
Total score	100	-----------	
Flavor and odor	------	-----------	------
Grade	------	-----------	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CARROTS [1]

IDENTITY, STYLES, AND GRADES

§ 52.671 *Identity.* "Canned carrots" means the canned product properly prepared from the clean, sound root of the carrot plant as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.672 *Styles of canned carrots.* (a) "Whole" or "whole carrots" means canned carrots consisting of whole carrots that retain the approximate original conformation of the whole carrot.

(b) "Slices" or "sliced carrots" means canned carrots consisting of carrot slices produced by slicing whole carrots transverse to the longitudinal axis.

(c) "Quarters" or "quartered carrots" means canned carrots consisting of quarters of carrots produced by cutting whole carrots longitudinally into four approximately equal units. Whole carrots cut longitudinally into six units approximating the size and appearance of the quartered carrots are also permitted in this style.

(d) "Diced carrots" means canned carrots consisting of units produced by cutting whole carrots into cubes having edges, other than the rounded outer edges, measuring approximately ½ inch or less.

(e) "Julienne," "French style," or "shoestring" means canned carrots consisting of strips of carrots.

(f) "Cut" means canned carrots consisting of units which with respect to size or shape do not conform to any of the foregoing styles. Carrots which have been cut longitudinally into two approximately equal units are included in this style.

(g) "Unit" means an individual carrot or portion of a carrot in canned carrots.

§ 52.673 *Grades of canned carrots.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned carrots that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a good color; that are practically free from defects; that are tender; that are practically uniform in size and shape; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned carrots that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a fairly good color; that are fairly free from defects; that are fairly tender; that are fairly uniform in size and shape; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of canned carrots that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.674 *Recommended fill of container.* The recommended fill of container is not incorporated in the grade of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that the container of canned carrots be filled as full as practicable with carrots without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.675 *Recommended minimum drained weight.* The minimum drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned carrots is determined by emptying the contents of the container upon a U. S. Standard No. 8 sieve of proper diameter so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage and allowing to drain for two minutes. The drained weight is the weight of the sieve and carrots less the weight of the dry sieve. A sieve 8 inches in diameter is used for the No. 2½ size can (401 x 411) and smaller sizes; and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I—RECOMMENDED MINIMUM DRAINED WEIGHTS, IN OUNCES, OF CARROTS

Container size or designation	Style of canned carrots				
	Whole	Diced	Quartered cut	Sliced	Julienne
8-ounce tall	5¾	6	6	5¾	5½
8-ounce glass	5¾	6	6	5¾	5½
No. 1 picnic	7¼	7½	7½	7¼	7
No. 300	9½	10	10	9½	9
No. 303	10½	11	11	10½	10
No. 303 glass	10½	11	11	10½	10
No. 2	12½	13	12½	12½	12
No. 2½	18½	19	18½	18½	18¼
No. 2½ glass	18¼	18¾	18¼	18¼	18
No. 10	68	72	70½	69	68

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

SIZES

§ 52.676 *Sizes of carrots in whole carrots.* The size of any carrot is determined by measuring the longest diameter through the center transverse to the longitudinal axis of the carrot.

§ 52.677 *Sizes of carrot slices in sliced carrots.* The size of any slice in sliced carrots is determined by measuring the smallest diameter of the largest surface of the slice.

§ 52.678 *Sizes of carrot quarters in quartered carrots.* The size of any quarter in quartered carrots with respect to diameter is determined by measuring the largest cut surface transverse to the longitudinal axis.

FACTORS OF QUALITY

§ 52.679 *Ascertaining the grade.* (a) The grade of canned carrots is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size and shape, absence of defects, and texture.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	Points
Color	25
Uniformity of size and shape	15
Absence of defects	30
Texture	30
Total score	100

(c) "Normal flavor and odor" means that the canned carrots are free from objectionable flavors and objectionable odors of any kind.

§ 52.680 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range for the rating of each factor is inclusive (for example, "12 to 15 points" means 12, 13, 14, or 15 points).

§ 52.681 *Color*—(a) *(A) classification.* Canned carrots that possess a good color may be given a score of 21 to 25 points. "Good color" means that the canned carrots possess an orange-yellow color that is bright and typical of canned carrots, and that the presence of green units does not more than slightly affect the appearance or eating quality of the product.

(b) *(C) classification.* If the canned carrots possess a fairly good color, a score of 18 to 20 points may be given. Canned carrots that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned carrots possess the typical color of canned carrots, that such color may be slightly dull but not off-color, and that the presence of green units does not materially affect the appearance or eating quality of the product.

(c) *(SStd) classification.* Canned carrots that are off-color for any reason or that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.682 *Uniformity of size and shape*—(a) *(A) classification.* Canned carrots that are practically uniform in size and shape may be given a score of 12 to 15 points. "Practically uniform in size and shape" has the following meanings with respect to the various styles of canned carrots:

(1) *Whole carrots.* The size of the individual carrot is not more than 1¾ inches in diameter, measured as aforesaid; the carrots may vary moderately in shape and the diameter of the largest unit is not more than 50 percent greater than the diameter of the second smallest unit.

(2) *Quartered carrots.* The carrots from which the quarters have been prepared were of a size not more than 2½ inches in diameter, measured as aforesaid, and the diameter of the largest quarter is not more than 50 percent greater than the diameter of the second smallest quarter, and the length of the longest quarter is not more than 50 percent greater than the length of the second shortest quarter.

(3) *Sliced carrots.* The individual slice is not more than ⅜ inch in thickness when measured at the thickest portion; the size of each slice is not more than 2½ inches in diameter, measured as aforesaid, and the diameter of the largest slice is not more than 50 percent greater than the diameter of the second smallest slice.

(4) *Diced carrots.* The units are practically uniform in size and shape with edges, other than the rounded outer edges, measuring approximately ½ inch or less; and the aggregate weight of all units of irregular shape which are noticeably smaller than one-half the volume of an average size cube and of all noticeably large and large irregular shaped units does not exceed 12 percent of the weight of all the units.

(5) *Julienne, French style, or shoestring.* The strips of carrots are practically uniform in size and shape, with cross sections measuring approximately ³⁄₁₆ inch, and the aggregate weight of all strips less than ½ inch in length does not exceed 12 percent of the weight of all the strips.

(6) *Cut.* The individual units weigh not less than ¼ ounce and the largest unit is not more than four times the weight of the second smallest unit. When cut longitudinally into two approximately equal units, the carrots from which the units have been prepared were of a size not more than 2½ inches in diameter, measured as aforesaid, and the weight of the largest unit is not more than 50 percent greater than the weight of the second smallest unit.

(b) *(C) classification.* If the canned carrots are fairly uniform in size and shape a score of 8 to 11 points may be given. Canned carrots that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly uniform in size and shape" has the following meanings with respect to the various styles of canned carrots:

(1) *Whole carrots.* The size of the individual carrot is not more than 2¼ inches in diameter, measured as aforesaid; the carrots may vary considerably in shape, and the diameter of the largest unit is not more than twice the diameter of the second smallest unit.

(2) *Quartered carrots.* The carrots from which the quarters have been cut were of a size not more than 2½ inches in diameter, measured as aforesaid, and the diameter of the largest quarter is not more than twice the diameter of the second smallest unit, and the length of the longest quarter is not more than twice the length of the second shortest quarter.

(3) *Sliced carrots.* The individual slice is not more than ⅜ inch in thickness when measured at the thickest portion; the size of each slice is not more than 2½ inches in diameter, measured as aforesaid; and the diameter of the largest slice is not more than twice the diameter of the second smallest slice.

(4) *Diced carrots.* The units are fairly uniform in size and shape, with edges, other than the rounded outer edges, measuring approximately ½ inch or less; and the aggregate weight of all units of irregular shape which are noticeably smaller than one-half the volume of an average size cube and of all noticeably large and large irregular shaped units does not exceed 25 percent of the weight of all the units.

(5) *Julienne, French style, or shoestring.* The strips of carrots are fairly uniform in size and shape, with cross sections measuring approximately ³⁄₁₆ inch and the aggregate weight of all the strips less than ½ inch in length does not exceed 25 percent of the weight of all the strips.

(6) *Cut.* The individual units weigh not less than ⅛ ounce and the largest unit is not more than twelve times the weight of the second smallest unit. When cut longitudinally into two approximately equal units, the carrots from which the units have been prepared were of a size not more than 2½ inches in diameter, measured as aforesaid, and the weight of the largest unit is not more than twice the weight of the second smallest unit.

(c) *(SStd) classification.* Canned carrots that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 7 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.683 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from defective units. Defective units are units damaged by mechanical injury, unpeeled units, units blemished or seriously blemished by brown or black internal or external discoloration, sunburn, or green colored units, pathological injury or insect injury, and units blemished or seriously blemished by other means.

(1) "Damaged by mechanical injury" means crushed, broken, or cracked units, units with excessively frayed edges and

surfaces, excessively trimmed units, or damaged by other means.

(2) "Unpeeled unit" means any unit possessing an unpeeled area greater than the area of a circle ¼ inch in diameter.

(3) "Blemished" means any unit blemished to the extent that the appearance or eating quality is materially affected.

(4) "Seriously blemished" means any unit blemished to the extent that the appearance or eating quality is seriously affected.

(b) *(A) classification.* Canned carrots that are practically free from defects may be given a score of 26 to 30 points. "Practically free from defects" has the following meanings with respect to the various styles of canned carrots:

(1) *Whole carrots.* The aggregate weight of all defective units does not exceed 15 percent of the weight of all the units, and of such 15 percent not more than ½ thereof or one carrot, whichever weighs more, may consist of blemished units and seriously blemished units: *Provided,* That not more than 1 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not more than slightly affect the appearance or eating quality of the product.

(2) *Sliced, quartered, and cut carrots.* The aggregate weight of all defective units does not exceed 15 percent of the weight of all the units, and of such 15 percent not more than ½ thereof or one slice, quarter or cut, whichever weighs more, may consist of blemished units and seriously blemished units: *Provided,* That not more than 1 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not more than slightly affect the appearance or eating quality of the product.

(3) *Diced, Julienne, French style, or shoestring carrots.* The aggregate weight of all defective units does not exceed 10 percent of the weight of all the units and of such 10 percent not more than ½ thereof may consist of blemished units and seriously blemished units: *Provided,* That not more than 1 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not more than slightly affect the appearance or eating quality of the product.

(c) *(C) classification.* Canned carrots that are fairly free from defects may be given a score of 22 to 25 points. Canned carrots that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meanings with respect to the various styles of canned carrots:

(1) *Whole carrots.* The aggregate weight of all defective units does not exceed 25 percent of the weight of all the units, and of such 25 percent, not more than ½ thereof may consist of blemished units and seriously blemished units: *Provided,* That not more than 2 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not seriously affect the appearance or eating quality of the product.

(2) *Sliced, quartered, and cut carrots.* The aggregate weight of all defective units does not exceed 25 percent of the weight of all the units, and of such 25 percent not more than ½ thereof may consist of blemished units and seriously blemished units: *Provided,* That not more than 2 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not seriously affect the appearance or eating quality of the product.

(3) *Diced, Julienne, French style, or shoestring carrots.* The aggregate weight of all defective units does not exceed 20 percent of the weight of all the units, and of such 20 percent not more than ½ thereof may consist of blemished units and seriously blemished units: *Provided,* That not more than 2 percent, by weight, of all the units may be seriously blemished, and that the presence of blemished and seriously blemished units does not seriously affect the appearance or eating quality of the product.

(d) *(SStd) classification.* Canned carrots that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.684 *Texture*—(a) *General.* The factor of texture refers to the tenderness of the carrots and the degree of freedom from coarse and fibrous units.

(b) *(A) classification.* Canned carrots that possess a tender texture may be given a score of 26 to 30 points. "Tender texture" means that the carrots are tender and firm but not fibrous, and possess a practically uniform texture.

(c) *(C) classification.* If the canned carrots possess a fairly tender texture, a score of 22 to 25 points may be given. Canned carrots that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender texture" means that the carrots are fairly tender, may be variable in texture but not soft or mushy, tough or hard, and there may be present a few units which possess a coarse or fibrous texture.

(d) *(SStd) classification.* Canned carrots that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.685 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned carrots, the grade for such lot will be determined by averaging the total score of all containers if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.686 *Score sheet for canned carrots.*

Number, size, and kind of container	----
Container mark or identification	----
Label	----
Net weight (ounces)	----
Vacuum (inches)	----
Drained weight (ounces)	----
Style	----
Size of whole carrots (count)	----
Size of sliced carrots (diameter)	----

Factors	Score points		
Color	25	(A)	21-25
		(C)	[1] 18-20
		(S Std.)	[1] 0-17
Uniformity of size and shape	15	(A)	12-15
		(C)	[1] 8-11
		(S Std.)	[1] 0-7
Absence of defects	30	(A)	26-30
		(C)	[1] 22-25
		(S Std.)	[1] 0-21
Texture	30	(A)	26-30
		(C)	[1] 22-25
		(S Std.)	[1] 0-21
Total score	100		

Normal flavor and odor	----
Grade	----

[1] Indicates limiting rule.

Subpart—United States Standards for Grades of Frozen Diced Carrots [1]

PRODUCT DESCRIPTION, STYLE, AND GRADES

§ 52.701 *Product description.* Frozen diced carrots is the clean and sound product prepared from the fresh root of the carrot plant (Daucus carota) by washing, sorting, peeling, trimming, and blanching, and is then frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product.

§ 52.702 *Style of frozen diced carrots.* "Diced carrots" means frozen carrots consisting of units produced by cutting whole carrots into cubes having edges other than the rounded outer edges, measuring approximately ½ inch or less.

§ 52.703 *Grades of frozen diced carrots.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen diced carrots that possess similar varietal characteristics; that possess a good

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

flavor and odor; that possess a good color; that are practically free from defects; that are tender; that are practically uniform in size and shape; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen diced carrots that possess similar varietal characteristics; that possess a reasonably good flavor and odor; that possess a reasonably good color; that are reasonably free from defects; that are reasonably tender; that are reasonably uniform in size and shape; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen diced carrots that fail to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.704 *Ascertaining the grade.* (a) The grade of frozen diced carrots may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size and shape, absence of defects, and texture.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	*Points*
Color	25
Uniformity of size and shape	15
Absence of defects	30
Texture	30
Total score	100

(c) The score for the factors of color, uniformity of size and shape, and absence of defects in frozen diced carrots is determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. A representative sample of the product is cooked to determine texture and flavor and odor.

(d) "Good flavor and odor" means that the product after cooking has a good characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from obectionable flavors and objectionable odors of any kind.

§ 52.705 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "12 to 15 points" means 12, 13, 14, or 15 points).

§ 52.706 *Color*—(a) (*A*) *classification.* Frozen diced carrots that possess a good color may be given a score of 21 to 25 points. "Good color" means that the frozen diced carrots possess an orange-yellow color that is bright and typical of frozen carrots, and that the presence of green units does not more than slightly affect the appearance or eating quality of the product.

(b) (*B*) *classification.* If the frozen diced carrots possess a reasonably good color, a score of 18 to 20 points may be given. Frozen diced carrots that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen diced carrots possess the typical color of frozen carrots and such color may be slightly dull but not off color, and that the presence of green units does not materially affect the appearance or eating quality of the product.

(c) (*SStd*) *classification. Frozen* diced carrots that are off color for any reason or that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.707 *Uniformity of size and shape*—(a) (*A*) *classification.* Frozen diced carrots that are practically uniform in size and shape may be given a score of 12 to 15 points. "Practically uniform in size and shape" means that the units are practically uniform in size and shape with edges, other than the rounded outer edges, measuring approximately ½ inch or less; and the aggregate weight of all units of irregular shape which are noticeably smaller than one-half the volume of an average size cube and of all noticeably large and large irregular shaped units does not exceed 12 percent of the weight of all the units.

(b) (*B*) *classification.* If the frozen diced carrots are reasonably uniform in size and shape a score of 8 to 11 points may be given. Frozen diced carrots that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably uniform in size and shape" means that the units are reasonably uniform in size and shape with edges, other than the rounded outer edges, measuring approximately ½ inch or less; and the aggregate weight of all units of irregular shape which are noticeably smaller than one-half the volume of an average size cube and of all noticeably large and large irregular shaped units does not exceed 25 percent of the weight of all the units.

(c) (*SStd*) *classification.* Frozen diced carrots that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 7 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.708 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from defective units. Defective units are units damaged by mechanical injury, unpeeled units, units blemished or seriously blemished by brown or black internal or external discoloration, sunburn, or green colored units, pathological injury or insect injury, and units blemished or seriously blemished by other means.

(1) "Damaged by mechanical injury" means crushed, broken or cracked units, units with excessively frayed edges and surfaces, or damaged by other means.

(2) "Unpeeled unit" means any unit possessing an unpeeled area greater than the area of a circle ⅛ inch in diameter.

(3) "Blemished" means any unit blemished to the extent that the appearance or eating quality is materially affected.

(4) "Seriously blemished" means any unit blemished to the extent that the appearance or eating quality is seriously affected.

(b) (*A*) *classification.* Frozen diced carrots that are practically free from defects may be given a score of 26 to 30 points. "Practically free from defects" means that the aggregate weight of all defective units does not exceed 10 percent of the weight of all the units, and of such 10 percent not more than one-half thereof may consist of blemished units and seriously blemished units: *Provided*, That not more than 1 percent, by weight, of all the units may be seriously blemished and that the presence of blemished and seriously blemished units does not more than slightly affect the appearance or eating quality of the product.

(c) (*B*) *classification.* Frozen diced carrots that are reasonably free from defects may be given a score of 22 to 25 points. Frozen diced carrots that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the aggregate weight of all defective units does not exceed 16 percent of the weight of all the units and of such 16 percent not more than ½ thereof may consist of blemished units and seriously blemished units: *Provided*, That not more than 2 percent, by weight, of all the units may be seriously blemished and that the presence of blemished and seriously blemished units does not materially affect the appearance or eating quality of the product.

(d) (*SStd*) *classification.* Frozen diced carrots that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.709 *Texture*—(a) *General.* The factor of texture refers to the tenderness of the carrots and the degree of freedom from coarse or fibrous units.

(b) (*A*) *classification.* Frozen diced carrots that possess a tender texture may be given a score of 26 to 30 points. "Tender texture" means that the carrots are tender, not fibrous, and possess a practically uniform texture.

(c) (*B*) *classification.* If the frozen diced carrots possess a reasonably tender texture, a score of 22 to 25 points may be given. Frozen diced carrots that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably tender texture" means that the carrots are reasonably tender, may be variable in texture but not tough or hard, and there may be present a few units which possess a coarse or fibrous texture.

(d) *(SStd) classification.* Frozen diced carrots that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.710 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen diced carrots the grade for such lot will be determined by averaging the total scores of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.711 *Score sheet for frozen diced carrots.*

Size and kind of container				
Container marks or identification				
Label				
Net weight (ounces)				
Style				
Factors	Score points			
Color	25	(A)	21-25	
		(B)	[1] 18-20	
		(SStd.)	[1] 0-17	
Uniformity of size and shape.	15	(A)	12-15	
		(B)	[1] 8-11	
		(SStd.)	[1] 0- 7	
Absence of defects	30	(A)	26-30	
		(B)	[1] 22-25	
		(SStd.)	[1] 0-21	
Texture	30	(A)	26-30	
		(B)	[1] 22-25	
		(SStd.)	[1] 0-21	
Total score	100			
Grade				
Flavor and odor				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CAULIFLOWER[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.721 *Product description.* Frozen cauliflower is prepared from the fresh flower heads of the cauliflower plant (Brassica oleracea botrytis) by trimming, washing, and blanching and is frozen and maintained at temperatures necessary for preservation of the product.

§ 52.722 *Grades of frozen cauliflower.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen cauliflower that possesses similar varietal characteristics; that possesses a good flavor and odor; that possesses a good color; that is practically free from defects; that possesses a good character; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen cauliflower that possesses similar varietal characteristics; that possesses a fairly good flavor and odor; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen cauliflower that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.723 *Ascertaining the grade.* (a) The grade of frozen cauliflower is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	40
Absence of defects	40
Character	20
Total score	100

(c) The scores for the factors of color, absence of defects, and character are determined immediately after thawing so that the product is sufficiently free from ice crystals to permit proper handling as individual units, except that buds or buttons which are slightly dark in typical color are cooked before evaluating the factor of color. The product is cooked to determine the flavor and odor.

(d) "Good flavor and odor" means that the product after cooking has a good, characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.724 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.725 *Color*—(a) *(A) classification.* Frozen cauliflower that possesses a good color may be given a score of 34 to 40 points. "Good color" means that the buds or buttons possess a characteristic white to light cream color over the tops, which color may be slightly variable, and that the product may possess a characteristic green color or bluish tint on the branches and greenish yellow to light green modified leaves or bracts: *Provided,* That the buds or buttons may possess a color slightly darker than light cream which disappears upon cooking.

(b) *(B) classification.* If the frozen cauliflower possesses a reasonably good color, a score of 28 to 33 points may be given. Frozen cauliflower that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the buds or buttons may possess a variable characteristic color ranging from white or light cream to dull white or dark cream over the tops, and that the product may possess a characteristic green color or bluish tint on the branches and greenish yellow to light green modified leaves or bracts: *Provided,* That the buds or buttons may possses a color darker than dark cream, but not seriously darkened, which color disappears upon cooking to the extent that the appearance of the product is no more than slightly affected.

(c) *(SStd) classification.* Frozen cauliflower that is off color for any reason or that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.726 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from poorly trimmed clusters and small clusters, from damaged and seriously damaged clusters and small clusters, from pieces and detached fragments, and from any other defects which detract from the appearance or edibility of the product.

(1) "Portion of a head" means an individual portion or section of a head made up of buds or buttons and the adjoining stems or portions of stems and attached modified leaves or bracts.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(2) "Cluster" means a portion of a head which weighs more than ¼ ounce and which is not less than ¾ inch in the greatest dimension measured across the top of the cluster.

(3) "Small cluster" means a portion of a head which weighs not more than ¼ ounce and which is not less than ¾ inch in the greatest dimension measured across the top of the cluster.

(4) "Piece" means a small portion of a head which is less than ¾ inch in the greatest dimension measured across the top of the cluster. "Pieces" are considered as defects whether or not defective.

(5) "Detached fragments" are detached leaves, detached modified leaves or bracts, or detached portions of stems. Detached fragments are considered as defects whether or not defective.

(6) "Poorly trimmed cluster" or "poorly trimmed small cluster" means that the appearance of the cluster is seriously affected by ragged cutting or gouging, or both, or is seriously affected by attached modified leaves or bracts.

(7) "Damaged cluster" or "damaged small cluster" means that the cluster is damaged by dark discoloration, pathological injury, insect injury, or any other injury or defect which singly or in combination affect materially the appearance or edibility of the cluster.

(8) "Seriously damaged cluster" or "seriously damaged small cluster" means that the cluster is damaged to the extent that the appearance or edibility of the cluster is seriously affected.

(b) *(A) classification.* Frozen cauliflower that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the product is practically free from pieces and detached fragments and from any defects not specifically mentioned that affect materially the appearance or edibility of the product, and, in addition, means that:

(1) No seriously damaged clusters are present; and

(2) Not more than a total of 15 percent, by weight, of the cauliflower may be poorly trimmed clusters, poorly trimmed small clusters, damaged clusters, damaged small clusters, and seriously damaged small clusters: *Provided,* Not more than 10 percent, by weight, of the cauliflower are damaged clusters,[2] damaged small clusters, and seriously damaged small clusters: *Further provided,* Not more than 5 percent, by weight, of the cauliflower are seriously damaged small clusters.

(c) *(B) classification.* If the frozen cauliflower is reasonably free from defects, a score of 28 to 33 points may be given. Frozen cauliflower that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the product is reasonably free from pieces and detached fragments and from any defects not specifically mentioned that affect seriously the appearance or edibility of the product, and in addition, means that:

(1) Not more than a total of 30 percent, by weight, of the cauliflower may be poorly trimmed clusters, poorly trimmed small clusters, damaged clusters, damaged small clusters, seriously damaged clusters, and seriously damaged small clusters: *Provided,* Not more than 15 percent, by weight, of the cauliflower are damaged clusters, damaged small clusters, seriously damaged clusters, seriously damaged small clusters: *Further provided,* Not more than 10 percent, by weight, of the cauliflower are seriously damaged clusters and seriously damaged small clusters.

(d) *(SStd) classification.* Frozen cauliflower that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.727 *Character*—(a) *General.* The factor of character refers to the development, texture, and degree of freedom from ricey and fuzzy units.

(1) "Ricey units" are sections of the head on which the ultimate branches have become elongated, causing the flower clusters to separate and present a loose or open and sometimes granular appearance.

(2) "Fuzzy units" are sections of the head that have elongated individual flowers or pedicels that result in a very fuzzy appearance.

(b) *(A) classification.* Frozen cauliflower that possesses a good character may be given a score of 17 to 20 points. "Good character" means that not less than 80 percent, by weight, of the cauliflower are firm and compact clusters of buds or buttons; and that the remainder of the clusters may be reasonably firm and reasonably compact or may be slightly soft, slightly ricey, or slightly fuzzy.

(c) *(B) classification.* If the frozen cauliflower possesses a reasonably good character, a score of 14 to 16 points may be given. Frozen cauliflower that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that not less than 60 percent, by weight, of the cauliflower are at least reasonably firm and reasonably compact clusters of buds or buttons; and that the remainder of the clusters may be soft, ricey, or fuzzy but not more than 10 percent, by weight, of the cauliflower may be mushy.

(d) *(SStd) classification.* Frozen cauliflower that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.728 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen cauliflower, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated:

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.729 *Score sheet for frozen cauliflower.*

Size and kind of container			------
Container marks or identification			------
Label			------
Net weight (ounces)			------
Factors	Score points		
Color	40	(A) 34-40 (B) [1] 28-33 (S Std) [1] 0-27	
Absence of defects	40	(A) 34-40 (B) [1] 28-33 (S Std) [1] 0-27	
Character	20	(A) 17-20 (B) [1] 14-16 (S Std) [1] 0-13	
Total score	100		
Flavor and odor			------
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF SULFURED CHERRIES [1]

PRODUCT DESCRIPTION, STYLES, SIZES, AND GRADES

§ 52.741 *Product description.* "Sulfured cherries" are prepared from properly matured whole cherries (Prunus avium or Prunus cerasus) of similar varietal characteristics; are packed with or without the addition of a hardening agent, in a solution of sulfur dioxide of sufficient strength to preserve the product.

§ 52.742 *Styles of sulfured cherries.* (a) "Unstemmed and unpitted" is the style of sulfured cherries consisting of whole cherries (irrespective of size) with pits, and not less than 80 percent, by weight, of all the cherries have the stems attached.

(b) "Stemmed and unpitted" is the style of sulfured cherries consisting of whole cherries (irrespective of size) with pits and not more than ½ of 1 percent, by weight, of all the cherries are cherries with stems attached.

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[2] One cluster in a single container is permitted to be damaged if such cluster exceeds 10 percent, by weight, provided that in all containers comprising the sample, such damaged cluster does not exceed an average of 10 percent by weight.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) "Stemmed and pitted" is the style of sulfured cherries consisting of whole cherries of which not more than ½ of 1 percent, by weight, of all the cherries are cherries with stems attached and: (1) For each 40 ounces of all the cherries there may be present not more than 2 cherries with pits when all cherries are of small size or extra small size; (2) for each 40 ounces of all the cherries there may be present not more than 1 cherry with a pit when all cherries are of medium size, large size, or different sizes; and (3) for each 60 ounces of all the cherries there may be present not more than 1 cherry with a pit when all cherries are of extra large size.

(d) "Unstemmed and pitted" or "cocktail" is the style of sulfured cherries consisting of whole cherries of which not more than 7 percent, by weight, of all the cherries are cherries without the stems firmly attached and: (1) For each 40 ounces of all the cherries there may be present not more than 2 cherries with pits when all cherries are of small size or extra small size; (2) for each 40 ounces of all the cherries there may be present not more than 1 cherry with a pit when all cherries are of medium size, large size, or different sizes; and (3) for each 60 ounces of all the cherries there may be present not more than 1 cherry with a pit when all cherries are of extra large size.

(e) "Unclassified" consists of sulfured cherries which do not conform to any of the foregoing styles.

(f) "Pit" means an entire pit or portion thereof attached to a sulfured cherry or within the pit cavity.

§ 52.743 *Recommended sizes of sulfured cherries.* (a) Although size is a factor in connection with some styles of sulfured cherries, it is not a factor of quality for the purpose of these grades. The size range of sulfured cherries varies on the basis of the diameter of the fruit. The diameter of the sulfured cherry is the minimum diameter of the fruit that will pass through a rigid ring of the same diameter without using pressure. The name designations of the various sizes are shown in the first column of Table No. I of this section. Sulfured cherries will be considered as meeting a particular designated size if not more than 10 percent, by weight, of all the cherries are 1 mm. smaller or 2 mm. smaller and not more than 10 percent, by weight, of all the cherries are 1 mm. larger or 2 mm. larger than the diameter range of the particular size designation: *Provided,* That not more than 1 percent, by weight, of all cherries are no more than 2 mm. smaller than the minimum diameter for the designated size and not more than 1 percent, by weight, of all cherries are no more than 2 mm. larger than the maximum diameter for the designated size.

TABLE NO. I—SIZES OF CHERRIES IN SULFURED CHERRIES

Name designation:	*Minimum and maximum diameter*
Extra small	14 mm. to, and including, 16 mm.
Small	16 mm. to, and including, 18 mm.
Medium	18 mm. to, and including, 20 mm.
Large	20 mm. to, and including, 22 mm.
Extra large	22 mm. and over.

§ 52.744 *Grades of sulfured cherries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of sulfured cherries that are clean; that possess a good color; that are practically free from defects; that possess a good character; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of sulfured cherries that are clean; that possess a reasonably good color; that are reasonably free from defects; that possess a reasonably good character; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Seconds" is the quality of sulfured cherries that are clean, but for other reasons fail to meet the requirements of U. S. Grade B or U. S. Choice.

(d) "U. S. Combination Grade" is the quality of sulfured cherries that are clean; and that with respect to color, absence of defects, and character meets the following requirements:

(1) Not less than 90 percent, by weight, of all the cherries, possess at least a reasonably good color and a reasonably good character and are free from misshapen cherries, cherries seriously damaged by mechanical injury, and seriously blemished cherries; and

(2) Unless otherwise specified, at least 50 percent, by weight, of all the cherries, possess a good color and a good character; and are free from blemished cherries or seriously blemished cherries, misshapen cherries, and cherries damaged by mechanical injury or cherries seriously damaged by mechanical injury.

§ 52.745 *Definition.* "Clean" means that the product is practically free from loose pits, leaves, detached stems, bark, fruit spurs, dirt or other foreign material.

FACTORS OF QUALITY

§ 52.746 *Ascertaining the grade with respect to "U. S. Grade A" or "U. S. Fancy" and "U. S. Grade B" or "U. S. Choice."* (a) The grade of sulfured cherries is ascertained by considering, in addition to the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

§ 52.747 *Ascertaining the rating for each factor which is scored.* The essential variations within each factor which is scored are so described that the value may be ascertained and expressed numerically. The numerical range for the ratings of such factors is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.748 *Color*—(a) *(A) classification.* Sulfured cherries that possess a good color may be given a score of 17 to 20 points. "Good color" means that the cherries possess a practically uniform color typical of well-bleached sulfured cherries for the variety.

(b) *(B) classification.* If the sulfured cherries possess a reasonably good color, a score of 14 to 16 points may be given. "Reasonably good color" means that the cherries possess a reasonably uniform color typical of reasonably well-bleached sulfured cherries for the variety. Sulfured cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(c) *(SStd) classification.* Sulfured cherries that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points. Sulfured cherries that fall into this classification shall not be graded above U. S. Grade D or Seconds, regardless of the total score for the product (this is a limiting rule).

§ 52.749 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from misshapen cherries, cherries damaged or seriously damaged by mechanical injury, and cherries blemished or seriously blemished by discoloration, rain or solution cracks, bird pecks, pathological injury, insect injury or blemished by other means.

(1) "Misshapen cherries" means any deformed cherries or double cherries.

(2) "Cherries damaged by mechanical injury" means any pitter tear or pitter tears which materially affect the appearance of the cherry; any open pitter hole measuring more than ⅛ inch across, but not more than 3/16 inch across, or open pitter holes aggregating more than ⅛ inch across, but not more than 3/16 inch across; any pitter hole where there is a material loss of flesh; and other mechanical injury which materially affects the appearance of the cherry.

(3) "Cherries seriously damaged by mechanical injury" means any pitter tear or pitter tears which seriously affect the appearance of the cherry; any open pitter hole measuring more than 3/16 inch across, or open pitter holes aggregating more than 3/16 inch across, any pitter hole where there is a serious loss of flesh; and other mechanical injury which seriously affects the appearance of the cherry.

(4) "Blemished cherry" means any cherry which is affected by:

(i) Dark surface discoloration exceeding in the aggregate the area of a circle 3/16 inch in diameter, but not exceeding in the aggregate $\frac{1}{8}$ of the surface of the cherry;

(ii) Any rough surface areas which slightly affect the appearance of the cherry;

(iii) Light surface discoloration exceeding in the aggregate $\frac{1}{8}$ of the surface of the cherry, but not exceeding in the aggregate $\frac{1}{2}$ of the surface of the cherry;

(iv) Rain checks or rain cracks *(a)* in the stem basin more than $\frac{1}{4}$ inch in length, but not more than $\frac{1}{2}$ inch in length, *(b)* any rain checks or rain cracks outside the stem basin more than $\frac{3}{16}$ inch in length but not more than $\frac{3}{8}$ inch in length;

(v) Any solution cracks or other blemish or combination of any blemishes which materially affect the appearance of the cherry. The term "blemished cherry" also means any cherry the flesh of which is materially discolored.

(5) "Seriously blemished cherry" means any cherry which is affected by:

(i) Dark surface discoloration exceeding in the aggregate $\frac{1}{8}$ of the surface of the cherry;

(ii) Any rough surface areas which materially affect the appearance of the cherry;

(iii) Light surface discoloration exceeding in the aggregate $\frac{1}{2}$ of the surface of the cherry;

(iv) Rain checks or rain cracks *(a)* in the stem basin more than $\frac{1}{2}$ inch in length, *(b)* any rain checks or rain cracks outside the stem basin, more than $\frac{3}{16}$ inch in length.

(v) Any solution cracks or other blemish or combination of any blemishes which seriously affect the appearance of the cherry. The term "seriously blemished cherry" also means any cherry the flesh of which is seriously discolored.

(b) *(A) classification.* Sulfured cherries that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that not more than a total of 10 percent, by weight, of cherries are misshapen cherries, cherries damaged by mechanical injury, seriously damaged by mechanical injury, blemished cherries or seriously blemished cherries of which not more than five percent, by weight, of all cherries are misshapen cherries, cherries seriously damaged by mechanical injury or seriously blemished cherries.

(c) *(B) classification.* Sulfured cherries that are reasonably free from defects may be given a score of 28 to 33 points. "Reasonably free from defects" means that not more than a total of 10 percent, by weight, of cherries are misshapen cherries, cherries seriously damaged by mechanical injury, or seriously blemished cherries. Sulfured cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(d) *(SStd) classification.* Sulfured cherries that fail to meet the requirements of paragraph (c) of this section for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Seconds, regardless of the total score for the product (this is a limiting rule).

§ 52.750 *Character*—(a) *General.* The factor of character refers to the firmness of the cherries and to the condition of the flesh.

(b) *(A) classification.* Sulfured cherries that possess a good character may be given a score of 34 to 40 points. "Good character" means that the cherries possess a firm fleshy texture, retain their approximate original shape, are not shriveled or watery, and do not show more than slight collapsed areas of flesh. To score in this classification, sulfured cherries may contain not more than five percent, by weight, of cherries which fail to meet requirements for "good character."

(c) *(B) classification.* If the sulfured cherries possess a reasonably good character, a score of 28 to 33 points may be given. Sulfured cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the cherries possess a reasonably firm texture, may have slightly lost their original shape, may be slightly shriveled, or may show moderate collapsed areas of flesh. To score in this classification, sulfured cherries may contain not more than 10 percent, by weight, of cherries which fail to meet the requirements for "reasonably good character."

(d) *(SStd) classification.* Sulfured cherries that are soft, flabby, wrinkled, leathery, or have materially lost their original shape, or show seriously collapsed areas of flesh, or fail to meet the requirements of paragraph (c) of this section for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Seconds, regardless of the total score for the product (this is a limiting rule).

§ 52.751 *Ascertaining the grade with respect to U. S. Combination Grade.* (a) The combination grade of sulfured cherries is ascertained by considering color, absence of defects, character, and the cleanliness of the product.

(b) The definition for cleanliness and the terms defined with respect to ascertaining "U. S. Grade A" or "U. S. Fancy" and "U. S. Grade B" or "U. S. Choice" outlined under the factors of color, absence of defects and character for these grades are also applicable for ascertaining the U. S. Combination Grade.

LOT CERTIFICATION TOLERANCES

§ 52.752 *Tolerance for certification of officially drawn samples for U. S. Combination Grade of sulfured cherries.* (a) When certifying samples that have been officially drawn and which represent a specific lot of sulfured cherries, the percent, by weight, of cherries which possess at least a reasonably good color and a reasonably good character, and are free from misshapen cherries, cherries seriously damaged by mechanical injury, and seriously blemished cherries is computed by averaging the percent, by weight, of such cherries in all samples of the lot if:

(1) None of the samples in the lot contain less than 80 percent, by weight of such cherries.

(b) The percent, by weight, of cherries for the lot which possess a good color and a good character, and are free from blemished cherries or seriously blemished cherries, misshapen cherries and cherries damaged by mechanical injury or cherries seriously damaged by mechanical injury, is computed by averaging the percent, by weight, of such cherries in all samples of the lot if:

(1) None of the samples in the lot contains less than 35 percent, by weight, of such cherries.

§ 52.753 *Tolerance for certification of officially drawn samples for "U. S. Grade A" or "U. S. Fancy" and "U. S. Grade B" or "U. S. Choice."* (a) When certifying samples that have been officially drawn and which represent a specific lot of sulfured cherries, the grade for such lot will be determined by averaging the total scores of the samples comprising the lot, if:

(1) Not more than one-sixth of such samples fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such samples which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all samples in the lot for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the samples comprising the lot falls more than four points below the minimum score for the grade indicated by the average of the total scores; and

(3) All samples comprising the lot meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET AND WORK SHEET

§ 52.754 *Score sheet for sulfured cherries.*

Size and kind of container	
Container identification marks	
Size of sample	
Size of cherries	
Style of pack	
Similar varieties	
Are clean	

Factors	Score points		
Color	20	(A) 17-20 (B)[1] 14-16 (D)[1] 0-13	
Absence of defects	40	(A) 34-40 (B)[1] 28-33 (D)[1] 0-27	
Character	40	(A) 34-40 (B)[1] 28-33 (D)[1] 0-27	
Total score	100		

Grade	
Size of lot covered	

[1] Indicates limiting rule.

§ 52.755 *Work sheet for sulfured cherries for grading on the basis of the U. S. Combination Grade.*

Size and kind of container	
Container identification marks	
Size of sample	
Style of pack	
Similar varieties	
Are clean	

Color	Good color—reasonably good color	Percent by weight
Absence of defects and character.	Possess a good character and are free from blemished or seriously blemished cherries, misshapen cherries and cherries damaged or seriously damaged by mechanical injury. Fail to meet requirements for reasonably good character, or are misshapen cherries, cherries seriously damaged by mechanical injury or seriously blemished cherries.	
Grade of sample		
Grade of lot		
Size of lot		

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED RED SOUR (TART) PITTED CHERRIES [1]

IDENTITY AND GRADES

§ 52.771 *Identity.* "Canned red sour (tart) pitted cherries" means the canned product prepared from mature pitted cherries of the red sour varietal group (Prunus cerasus), as such product is defined in the standard of identity for canned cherries (21 CFR 27.30), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.772 *Grades of canned red sour (tart) pitted cherries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned red sour (tart) pitted cherries that possess similar varietal characteristics; that possess a good, bright typical color; that are practically free from defects; that possess a good character; that possess a normal flavor; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart. In addition to the foregoing requirements, such canned red sour (tart) pitted cherries may contain not more than 5 percent, by count, of cherries that are less than $\frac{9}{16}$ inch in diameter.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned red sour (tart) pitted cherries that possess similar varietal characteristics; that possess a fairly good typical color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart. There is no size requirement for such canned red sour (tart) pitted cherries.

(c) "U. S. Grade D" or "Substandard" is the quality of canned red sour (tart) pitted cherries that fail to meet any requirement of "U. S. Grade C" or "U. S. Standard."

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.773 *Designations of liquid media and Brix measurements.* "Cut-out" requirements for packing media are not incorporated in the grades of the finished product since sirup or any other packing medium, as such, is not a factor of quality for the purpose of these grades. Canned red sour (tart) pitted cherries are packed in the optional packing media referred to in the aforesaid standard of identity for canned cherries and such packing media include, but are not limited to, the following, which have the indicated "cut-out" Brix measurement:

Designation of liquid media	*Brix measurement*
"Extra heavy sirup"	28° or more but less than 45°.
"Heavy sirup"	22° or more but less than 28°.
"Light sirup"	18° or more but less than 22°.
"Slightly sweetened water"	Less than 18°.

"Water" (water or any mixture of water and cherry juice).

§ 52.774 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned red sour (tart) pitted cherries be filled as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.775 *Recommended drained weight.* The drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned red sour (tart) pitted cherries is determined by emptying the contents of the container upon a circular sieve of proper diameter containing 8 meshes to the inch (0.097-inch square openings) and allowing to drain for two minutes. A sieve 8 inches in diameter is used for No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the No. 3 size can.

TABLE NO. I—RECOMMENDED DRAINED WEIGHTS

Container size or designation	Over-all dimensions		Packed in water	Packed in any sirup or "slightly sweetened water"
	Width	Height		
	Inches	*Inches*	*Ounces*	*Ounces*
No. 303	$3\frac{3}{16}$	$4\frac{7}{16}$	11	10¼
No. 2	$3\frac{7}{16}$	$4\frac{9}{16}$	13½	12¾
No. 10	$6\frac{3}{16}$	7	74	70¼

FACTORS OF QUALITY

§ 52.776 *Ascertaining the grade.* (a) The grade of canned red sour (tart) pitted cherries is ascertained by considering, in addition to the requirements of the respective grade (including the requirement for size in U. S. Grade A or U. S. Fancy) the respective ratings of the factors of color, absence of defects, and character.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) "Normal flavor" means that the flavor is characteristic of canned red sour (tart) pitted cherries and that the product is free from objectionable flavors of any kind.

§ 52.777 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range for the rating of each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19 or 20 points).

§ 52.778 *Color*—(a) *(A) classification.* Canned red sour (tart) pitted cherries that possess a good, bright typical color may be given a score of 17 to 20 points. "Good, bright typical color" means that the canned red sour (tart) pitted cherries possess a practically uniform color that is bright and typical of canned red sour (tart) pitted cherries which had been properly prepared and properly processed from properly ripened red sour cherries.

(b) *(C) classification.* If the canned red sour (tart) pitted cherries possess a fairly good typical color, a score of 14 to 16 points may be given. Canned red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good typical color" means that the canned red sour (tart) pitted cherries possess a fairly uniform typical color of canned red sour (tart) pitted cherries which had been properly prepared and properly processed and which color may range from a brownish cast to mottled shades of brown.

(c) *(SStd) classification.* Canned red sour (tart) pitted cherries that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.779 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, pits, mutilated cherries, and cherries blemished by scab, hail injury, discoloration, scar tissue, or by other means.

(1) "Cherry" means a whole cherry, whether or not pitted, or portions of such cherries which in the aggregate approximate the average size of the cherries.

(2) "Harmless extraneous material" means any vegetable substance (including, but not being limited to, a leaf or a stem, and any portions thereof) that is harmless.

(3) "Pit" means a whole pit or portions of pits computed as follows:

(i) A single piece of pit shell, whether or not within or attached to a whole cherry, that is larger than one-half pit shell is considered as one pit;

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(ii) A single piece of pit shell, whether or not within or attached to a whole cherry, that is not larger than one-half pit shell is considered as one-half pit;

(iii) Pieces of pit shell, within or attached to a whole cherry, when their combined size is larger than one-half pit shell are considered as one pit; and

(iv) Pieces of pit shell, within or attached to a whole cherry, when their combined size is not larger than one-half pit shell are considered as one-half pit.

(4) "Mutilated cherry" means a cherry that is so pitter-torn or damaged by other means that the entire pit cavity is exposed and the appearance of the cherry is seriously affected.

(5) "Blemished cherry" means any cherry the skin of which is blemished to the extent that the aggregate blemished area materially affects the appearance of the cherry. The term "blemished cherry" also means any cherry the flesh of which is materially discolored.

(6) "Seriously blemished" means any cherry blemished to the extent that the appearance or eating quality is seriously affected.

(b) *(A) classification.* Canned red sour (tart) pitted cherries that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present (1) not more than 1 piece of harmless extraneous material for each 60 ounces of net contents; (2) not more than 1 pit for each 20 ounces of net contents; and (3) not more than a total of 10 percent, by count, of cherries that are mutilated cherries and blemished cherries of which not more than 4 percent, by count, of all cherries are seriously blemished.

(c) *(C) classification.* If the canned red sour (tart) pitted cherries are fairly free from defects, a score of 28 to 33 points may be given. Canned red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present (1) not more than 1 piece of harmless extraneous material for each 20 ounces of net contents; (2) not more than 1 pit for each 20 ounces of net contents; and (3) not more than a total of 20 percent, by count, of cherries that are mutilated cherries and blemished cherries of which not more than 15 percent, by count, of all cherries are blemished.

(d) *(SStd) classification.* Canned red sour (tart) pitted cherries that fail to meet the requirements of paragraph (c) of this section for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.780 *Character*—(a) *General.* The factor of character refers to the degree of maturity of the cherries and the physical characteristics of the flesh of the cherries in canned red sour (tart) pitted cherries.

(b) *(A) classification.* Canned red sour (tart) pitted cherries that possess a good character may be given a score of 34 to 40 points. "Good character" means that the canned red sour (tart) pitted cherries possess a firm, fleshy texture typical of canned red sour (tart) pitted cherries which had been properly prepared and properly processed from properly ripened red sour cherries.

(c) *(C) classification.* If the canned red sour (tart) pitted cherries possess a fairly good character, a score of 28 to 33 points may be given. Canned red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the canned red sour (tart) pitted cherries possess a fairly firm or fairly fleshy texture but are not soft, tough, very thin-fleshed, or leathery in character.

(d) *(SStd) classification.* Canned red sour (tart) pitted cherries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.781 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned red sour (tart) pitted cherries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification, including the computation of pits based on a total quantity of sample contents of 24 pounds.

SCORE SHEET

§ 52.782 *Score sheet for canned red sour (tart) pitted cherries.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight (ounces)	------
Sirup designation (extra heavy, heavy, etc.)	------
Brix measurement	------
Size [2]	------

Factors	Score points		
Color	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Absence of defects	40	(A) 34-40 (C) [1] 28-33 (D) [1] 0-27	
Character	40	(A) 34-40 (C) [1] 28-33 (D) [1] 0-27	
Total score	100		
Normal flavor			------
Grade			------

[1] Indicates limiting rule.

[2] See size limitation for U. S. Grade A or U. S. Fancy only.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN RED SOUR (TART) PITTED CHERRIES [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.801 *Product description.* Frozen red sour (tart) pitted cherries are prepared from properly ripened fruit of the cherry tree of the red sour varietal group (Prunus cerasus); are washed, pitted, and sorted; are properly drained before filling; may be packed with or without packing media; and are frozen and stored at temperatures necessary for the preservation of the product.

§ 52.802 *Grades of frozen red sour (tart) pitted cherries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen red sour (tart) pitted cherries that possess similar varietal characteristics; that possess a good red color; that are practically free from defects; that possess a good character; that possess a normal flavor; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart. In addition to the foregoing requirements, such frozen red sour (tart) pitted cherries may contain not more than 5 percent, by count, of cherries that are less than 9/16 inch in diameter.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of frozen red sour (tart) pitted cherries that possess similar varietal characteristics; that possess a reasonably good red color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart. There is no size requirement for such frozen red sour (tart) pitted cherries.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen red sour (tart) pitted cherries that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FACTORS OF QUALITY

§ 52.803 *Ascertaining the grade.* (a) The grade of frozen red sour (tart) pitted cherries is determined immediately after thawing to the extent that the cherries may be separated easily and the cherries are free from ice and solidified packing media. The grade is determined by considering in addition to the requirements of the respective grade (including the requirement for size in U. S. Grade A or U. S. Fancy) the respective ratings of the factors of color, absence of defects, and character.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(b) The relative importance of each factor is expressed numerically on a scale of 100. The maximum number of points that may be given each factor is:

Factors:	Points
Color	20
Absence of defects	40
Character	40
Total score	100

(c) "Normal flavor" means that the flavor is characteristic of frozen red sour (tart) pitted cherries and that the product is free from objectionable flavors of any kind.

§ 52.804 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range for the rating of each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.805 *Color*—(a) *(A) classification.* Frozen red sour (tart) pitted cherries that possess a good red color may be given a score of 17 to 20 points. "Good red color" means that the frozen cherries possess a color that is bright and typical of properly ripened cherries and that is reasonably uniform in that not more than 15 percent, by count, of cherries vary markedly from this color because of discoloration due to oxidation, improper processing, or other causes, or because of undercolored cherries.

(b) *(C) classification.* If the frozen red sour (tart) pitted cherries possess a reasonably good red color, a score of 14 to 16 points may be given. Frozen red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good red color" means that the frozen cherries possess a color that is reasonably bright and typical of properly ripened cherries and that is fairly uniform in that not more than 25 percent, by count, of cherries vary markedly from this color because of discoloration due to oxidation, improper processing, or other causes, or because of undercolored cherries.

(c) *(SStd) classification.* Frozen red sour (tart) pitted cherries that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.806 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, pits, mutilated cherries, and cherries blemished by scab, hail injury, discoloration, scar tissue, or by other means.

(1) "Cherry" means a whole cherry, whether or not pitted, or portions of such cherries which in the aggregate approximate the average size of the cherries.

(2) "Harmless extraneous material" means any vegetable substance (including, but not being limited to, a leaf or a stem and any portions thereof) that is harmless.

(3) "Pit" means a whole pit or portions of pits computed as follows:

(i) A single piece of pit shell, whether or not within or attached to a whole cherry, that is larger than one-half pit shell is considered as one pit;

(ii) A single piece of pit shell, whether or not within or attached to a whole cherry, that is not larger than one-half pit shell is considered as one-half pit;

(iii) Pieces of pit shell, within or attached to a whole cherry, when their combined size is larger than one-half pit shell are considered as one pit; and

(iv) Pieces of pit shell, within or attached to a whole cherry, when their combined size is not larger than one-half pit shell are considered as one-half pit.

(4) "Mutilated cherry" means a cherry that is so pitter-torn or damaged by other means that the entire pit cavity is exposed and the appearance of the cherry is seriously affected.

(5) "Blemished cherry" means any cherry the skin of which is blemished to the extent that the aggregate area covered by the blemishes exceeds the area of a circle 9/32 inch in diameter and the appearance of the cherry is materially affected by such blemishes. The term "blemished cherry" also means any cherry the flesh of which is materially discolored.

(6) "Seriously blemished" means any cherry blemished to the extent that the appearance or eating quality is seriously affected.

(b) *(A) classification.* Frozen red sour (tart) pitted cherries that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present (1) not more than 1 piece of harmless extraneous material for each 60 ounces of net contents; (2) not more than 1 pit for each 20 ounces of net contents; and (3) not more than a total of 10 percent, by count, of cherries that are mutilated cherries and blemished cherries of which not more than 4 percent, by count, of all cherries are seriously blemished.

(c) *(C) classification.* If the frozen red sour (tart) pitted cherries are fairly free from defects, a score of 28 to 33 points may be given. Frozen red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present (1) not more than 1 piece of harmless extraneous material for each 20 ounces of net contents; (2) not more than 1 pit for each 20 ounces of net contents; and (3) not more than a total of 20 percent, by count, of cherries that are mutilated cherries and blemished cherries of which not more than 15 percent, by count, of all cherries are blemished.

(d) *(SStd) classification.* Frozen red sourt (tart) pitted cherries that fail to meet the requirements of paragraph (c) of this section for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.807 *Character*—(a) *General.* The factor of character refers to the degree of maturity of the cherries and the physical characteristics of the flesh of the cherries in frozen red sour (tart) pitted cherries.

(b) *(A) classification.* Frozen red sour (tart) pitted cherries that possess a good character may be given a score of 34 to 40 points. "Good character" means that the frozen red sour (tart) pitted cherries possess a firm, fleshy texture typical of frozen red sour (tart) pitted cherries which have been properly prepared and properly processed from properly ripened red sour cherries.

(c) *(C) classification.* If the frozen red sour (tart) pitted cherries possess a fairly good character, a score of 28 to 33 points may be given. Frozen red sour (tart) pitted cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the frozen red sour (tart) pitted cherries possess a fairly firm, fairly fleshy texture but are not soft, tough, very thin-fleshed, or leathery in character.

(d) *(SStd) classification.* Frozen red sour (tart) pitted cherries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.808 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen red sour (tart) pitted cherries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample,[2] if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

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[2] The allowance for pits will be based on the average of all containers comprising the sample.

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.809 *Score sheet for frozen red sour (tart) pitted cherries.*

Size and kind of container	----
Container mark or identification	----
Label (Style of pack. Ratio of fruit to sugar, etc., if shown)	----
Net weight (ounces)	----
Size [1]	----

Factors	Score points			
Color	20	(A)	17-20	
		(C)	[2] 14-16	
		(D)	[2] 0-13	
Absence of defects	40	(A)	34-40	
		(C)	[2] 28-33	
		(D)	[2] 0-27	
Character	40	(A)	34-40	
		(C)	[2] 28-33	
		(D)	[2] 0-27	
Total score	100			

Normal flavor	----
Grade	----

[1] See size limitation for U. S. Grade A or U. S. Fancy, only.

[2] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED SWEET CHERRIES [1]

IDENTITY, TYPES, STYLES, AND GRADES

§ 52.821 *Identity.* "Canned sweet cherries" means the canned product prepared from mature cherries and as defined in the standard of identity for canned cherries (21 CFR 27.30) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.822 *Types of canned sweet cherries.* (a) "Light" type are of the light sweet varietal group and includes, but is not limited to, such varieties known as Royal Anne.

(b) "Dark" type are of the dark sweet varietal group and includes, but is not limited to, such varieties known as Bing, Black Republican, Schmidt, and Lambert.

§ 52.823 *Styles of canned sweet cherries.* Unless specifically designated as "pitted", canned sweet cherries are considered as "unpitted."

(a) "Unpitted" sweet cherries are stemmed cherries without the pits removed.

(b) "Pitted" sweet cherries are stemmed cherries with the pits removed.

§ 52.824 *Grades of canned sweet cherries.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned sweet cherries that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and that are of such quality with respect to color and uniformity of size as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned sweet cherries that are reasonably free from defects; that possess a reasonably good character; that possess a normal flavor and odor; and that are of such quality with respect to color and uniformity of size as to score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned sweet cherries that possess a fairly good color; that are fairly uniform in size; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned sweet cherries that fail to meet the requirements of U. S. Grade C or U. S. Standard and is the quality of canned sweet cherries that may or may not meet the minimum standard of quality for canned cherries issued pursuant to the Federal Food, Drug, and Cosmetic Act.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.825 *Liquid media and Brix measurements for canned sweet cherries.* "Cutout" requirements for liquid media in canned sweet cherries are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. The "cutout" Brix measurement, as applicable, for the respective designations are as follows:

Designation	*Brix measurement*
"Extra heavy sirup" or "Extra heavy cherry juice sirup"	25° or more but not more than 35°.
"Heavy sirup" or "Heavy cherry juice sirup"	20° or more but less than 25°.
"Light sirup" or "Light cherry juice sirup"	16° or more but less than 20°.
"Slightly sweetened water" or "Slightly sweetened cherry juice"	Less than 16°.
"In water"	Packed in water.
"In cherry juice"	Packed in cherry juice.

§ 52.826 *Fill of container for canned sweet cherries.* The standard of fill of container for canned sweet cherries is the maximum quantity of cherries which can be sealed in the container and processed by heat to prevent spoilage, without crushing such ingredient. Canned sweet cherries that do not meet this requirement are "Below Standard in Fill."

§ 52.827 *Recommended minimum drained weight.* The minimum drained weight recommendations in Table I of § 52.828 are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned sweet cherries is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and sweet cherries less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

§ 52.828 *Compliance with recommended drained weights.* Compliance with the recommended drained weights for canned sweet cherries is determined by averaging the drained weights from all the containers which are representative of a specific lot, and such lot is considered as meeting the recommendations, for the applicable styles, if:

(a) The average drained weight from all the containers meets the recommended drained weight;

(b) One-half or more of the containers meet the recommended drained weight; and

(c) The drained weights from the containers which do not meet the recommended drained weight are within the range of variability for good commercial practice.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR PITTED AND UNPITTED CANNED SWEET CHERRIES

Container size or designation (metal, unless otherwise stated)	In extra heavy sirups and in declared "dietetic packs" whether or not packed in water	In heavy sirups	In light sirup and in slightly sweetened water or juice	Other than declared "dietetic packs" packed in water
	(Oz.)	*(Oz.)*	*(Oz.)*	*(Oz.)*
8 Z tall	4¾	5	5¼	5¼
No. 1 tall	9¾	10	10¼	10¼
No. 303	9¾	10	10¼	10¼
No. 303 glass	9¾	10	10¼	10¼
No. 2	12	12½	12¾	12¾
No. 2½	17½	18	18½	18½
No. 2½ glass	17¼	17¾	18¼	18¼
No. 10	66	68	70	70

FACTORS OF QUALITY

§ 52.829 *Ascertaining the grade.* (a) The grade of canned sweet cherries is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size, absence of defects, and character.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	30
Uniformity of size	20
Absence of defects	30
Character	20
Total score	100

(c) "Normal flavor and odor" means that the canned sweet cherries are free from objectionable flavors and objectionable odors of any kind.

§ 52.830 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "27 to 30 points" means 27, 28, 29, or 30 points).

§ 52.831 *Color*—(a) *General.* The factor of color refers to the color typical of the varietal group— either light sweet or dark sweet; and to the intensity and brightness of such characteristic color.

(b) *(A) classification.* Canned sweet cherries that possess a good color may be given a score of 27 to 30 points. "Good color" means that the cherries are bright and possess a color typical of well-matured cherries of similar varieties which have been properly processed; that in light sweet cherries, the basic background color, exclusive of blush, is a pinkish-yellow to pale amber color and that the blush appears as a surface color ranging from very light pinkish-tan to tannish-brown; and that in dark sweet cherries, the basic background color is a typical deep-red to purple-red or purple-black.

(c) *(B) classification.* If the canned sweet cherries possess a reasonably good color, a score of 24 to 26 points may be given. "Reasonably good color" means that the cherries possess a color typical of reasonably well-matured cherries of similar varieties which have been properly processed; that in light sweet cherries, the basic background color, exclusive of blush, is a pinkish-yellow to amber color which may be no more than slightly dull and that the blush appears as a surface color ranging from tan to tannish-brown; and that in dark sweet cherries, the basic background color is a typical deep red to purple-red or purple-black which may be no more than slightly dull.

(d) *(C) classification.* If the canned sweet cherries possess a fairly good color, a score of 21 to 23 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the cherries possess a color typical of fairly well-matured cherries of similar varieties which have been properly processed; that in light sweet cherries, the basic background color and blush may be variable or may be slightly dull but is not off-color; and that in dark sweet cherries, the cherries may possess a slightly dull deep red to slightly dull purple-red color or slightly dull purple-black color that may be variable but is not off-color.

(e) *(SStd) classification.* Canned sweet cherries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.832 *Uniformity of size*—(a) *General.* The factor of uniformity of size refers to the uniformity of diameters in pitted and unpitted cherries, and to the variation of weight and minimum weight in unpitted cherries.

(1) "Diameter" of a cherry is the diameter of a rigid round hole through which the cherry will just pass without using force. In pitted cherries, the diameter is that which approximates the apparent original size had the cherry not been pitted but does not apply to any pitter-torn cherries.

(b) *(A) classification.* Canned sweet cherries that are practically uniform in size may be given a score of 18 to 20 points. "Practically uniform in size" means that:

(1) In unpitted cherries,

(i) The weight of each cherry is not less than $\frac{1}{10}$ ounce (2.84 grams);

(ii) The weight of the largest cherry is not more than twice the weight of the smallest cherry; and

(iii) The diameter of the cherry with the greatest diameter may exceed the diameter of the cherry with the smallest diameter by not more than $\frac{3}{16}$ inch; and in 85 percent, by count, of all the cherries with the most uniform diameters the diameter of the cherries with the greatest diameters may exceed the diameter of the cherries with the smallest diameters by not more than $\frac{1}{16}$ inch.

(2) In pitted cherries,

(i) The diameter of the cherry with the greatest diameter may exceed the diameter of the cherry with the smallest diameter by not more than $\frac{3}{16}$ inch; and in 85 percent, by count, of all the cherries with the most uniform diameters the diameter of the cherries with the greatest diameters may exceed the diameter of the cherries with the smallest diameters by not more than $\frac{1}{16}$ inch.

(c) *(B) classification.* If the canned sweet cherries are reasonably uniform in size, a score of 16 or 17 points may be given. "Reasonably uniform in size" means that:

(1) In unpitted cherries,

(i) The weight of each cherry is not less than $\frac{1}{10}$ ounce (2.84 grams);

(ii) The weight of the largest cherry is not more than twice the weight of the smallest cherry; and

(iii) The diameter of the cherry with the greatest diameter may exceed the diameter of the cherry with the smallest diameter by not more than $\frac{3}{16}$ inch; and in 85 percent, by count, of all the cherries with the most uniform diameters the diameter of the cherries with the greatest diameters may exceed the diameter of the cherries with the smallest diameters by not more than $\frac{1}{8}$ inch.

(2) In pitted cherries,

(i) The diameter of the cherry with the greatest diameter may exceed the diameter of the cherry with the smallest diameter by not more than $\frac{3}{16}$ inch; and in 85 percent, by count, of all the cherries with the most uniform diameters the diameter of the cherries with the greatest diameters may exceed the diameter of the cherries with the smallest diameters by not more than $\frac{1}{8}$ inch.

(d) *(C) classification.* If the canned sweet cherries are fairly uniform in size, a score of 14 or 15 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Fairly uniform in size" means that:

(1) In unpitted cherries,

(i) The weight of each cherry is not less than $\frac{1}{10}$ ounce (2.84 grams);

(ii) The weight of the largest cherry is not more than twice the weight of the smallest cherry; and

(iii) The cherries may vary in diameter measurements.

(2) In pitted cherries,

(i) The cherries may vary in diameter measurements.

(e) *(SStd) classification.* Canned "unpitted" sweet cherries which fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points, shall not be graded above Substandard (this is a limiting rule), and are also "Below Standard in Quality" for the applicable reasons:

"Small";
"Mixed sizes."

§ 52.833 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material; from portions of stems; from pits or portions thereof in pitted style; from slightly damaged, damaged, slightly misshapen, misshapen, blemished, and seriously blemished cherries; and from any other defects which detract from the appearance or edibility of the product. Processing cracks are not considered as defects but are considered under the factor of character.

(1) "Cherry" means a whole cherry, whether or not pitted, or portions of such cherries which in the aggregate approximate the average size of a cherry.

(2) "Harmless extraneous material" means any vegetable substance (including, but not limited to, a leaf or portion thereof, a stem or portion thereof longer than $\frac{1}{2}$ inch) that is harmless.

(3) "Portions of cherry stems," whether loose or attached, means such portions that are $\frac{1}{2}$ inch or less and such portions are considered as a defect separate from "harmless extraneous material."

(4) A "pit" is considered as a defect only in the style of pitted cherries and means a whole pit or portions of pits computed as follows:

(i) A single piece of pit shell, whether or not within or attached to a whole cherry, that is larger than one-half pit shell is considered as one pit;

(ii) A single piece of pit shell, whether or not within or attached to a whole cherry, that is not larger than one-half pit shell is considered as one-half pit;

(iii) Pieces of pit shell, within or attached to a whole cherry, when their combined size is larger than one-half pit shell are considered as one pit; and

(iv) Pieces of pit shell, within or attached to a whole cherry, when their combined size is not larger than one-half pit shell are considered as one-half pit.

(5) "Slightly damaged" means any injury other than blemishes which affects the appearance of the cherry, and includes:

(i) Slight circular cracks with slight discoloration, such as "rain checks," confined entirely within the stem basin and more than ¼ inch, but not more than ½ inch, in length;

(ii) Slight cracks with slight discoloration, such as "rain checks," outside the stem basin and more than 3/16 inch but not more than ⅜ inch in length;

(iii) Mutilated cherries in unpitted style whereby the cherry is seriously torn at the stem end and that such torn area exceeds that of a circle ¼ inch in diameter; and mutilated cherries in pitted style whereby the cherry is so pitter-torn or so damaged by other similar means that the entire pit cavity is exposed and the appearance of the cherry is seriously affected.

(6) "Damaged" means any injury other than blemishes which affects the appearance of the cherry and includes:

(i) Serious circular cracks with discoloration, such as "rain checks," confined entirely within the stem basin and more than ½ inch in length;

(ii) Serious cracks with discoloration, such as "rain checks," outside the stem basin and more than ⅜ inch in length;

(iii) Deep cracks with discoloration, in unpitted style, outside the stem basin that are so deep as to expose the pit or that otherwise seriously affect the appearance of the cherry.

(7) "Slightly misshapen" cherries includes, but is not limited to, cherries which are slightly deformed or in which there is a cleavage (or deep furrow) with the skin unbroken at the suture extending more than 3/16 inch but no more than one-half the length from the stem cavity to the apex.

(8) "Misshapen" cherries means cherries which are deformed to the extent that the appearance is materially affected and includes, but is not limited to "double" cherries in unpitted style and cherries in which there is a cleavage (or deep furrow) with the skin unbroken at the suture extending more than one-half the length from the stem cavity to the apex.

(9) "Blemished" means any blemished areas on the skin, which singly or in the aggregate, materially affect the appearance of the cherry; and includes:

(i) Such surface blemishes having an aggregate area exceeding that of a circle 3/16 inch in diameter, not extending into the fruit tissue but which materially affect the appearance of the cherry; or

(ii) Such blemishes having an aggregate area equivalent of, or less than, that of a circle 3/16 inch in diameter and extending into the fruit tissue so that the flesh is materially discolored.

(10) "Seriously blemished" means blemished to the extent that the appearance or edibility of the cherry is seriously affected.

(b) (*A*) *classification.* Canned sweet cherries that are practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that the canned sweet cherries are practically free from any defects not specifically mentioned that affect the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 piece of harmless extraneous material for each 60 ounces of net contents;

(2) 1 portion of cherry stem for each 20 ounces of net contents;

(3) In pitted style, 1 pit for each 20 ounces of net contents; and

(4) A total of 10 percent by count of the cherries may be slightly damaged, damaged, slightly misshapen, misshapen, blemished, seriously blemished, or any combination thereof but not more than 5 percent by count of the cherries may be damaged, misshapen, blemished, seriously blemished, or any combination thereof: *Provided,* That not more than 2 percent by count of the cherries may be seriously blemished.

(c) (*B*) *classification.* If the canned sweet cherries are reasonably free from defects, a score of 24 to 26 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the canned sweet cherries are reasonably free from any defects not specifically mentioned that affect the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 piece of harmless extraneous material for each 40 ounces of net contents;

(2) A total of 5 portions of cherry stems but not more than 1 portion of cherry stem may be longer than ¼ inch but not longer than ½ inch for each 20 ounces of net contents;

(3) In pitted style, 1 pit for each 20 ounces of net contents; and

(4) A total of 20 percent by count of the cherries may be slightly damaged, damaged, slightly misshapen, misshapen, blemished, seriously blemished, or any combination thereof but not more than 10 percent by count of the cherries may be damaged, misshapen, blemished, seriously blemished, or any combination thereof: *Provided,* That not more than 3 percent by count of the cherries may be seriously blemished.

(d) (*C*) *classification.* If, the canned sweet cherries are fairly free from defects, a score of 21 to 23 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned sweet cherries are fairly free from any defects not specifically mentioned that affect the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 piece of harmless extraneous material for each 20 ounces of net contents;

(2) A total of 10 portions of cherry stems but not more than 3 portions of cherry stems, each of which may be longer than ¼ inch but not longer than ½ inch for each 20 ounces of net contents;

(3) In pitted style, 1 pit for each 20 ounces of net contents; and

(4) A total of 30 percent by count of the cherries may be slightly damaged, damaged, misshapen, blemished, seriously blemished, or any combination thereof but not more than 15 percent by count of the cherries may be blemished and seriously blemished.

(e) (*SStd*) *classification.* Canned sweet cherries which fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points; shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule); and may be "Below Standard in Quality" for the applicable reasons:

"Partially pitted;"
"Blemished."

§ 52.834 *Character*—(a) *General.* The factor of character refers to the fleshiness and to the tenderness and texture in relation to maturity in the canned sweet cherries and to the presence of serious processing cracks in unpitted style.

(1) "Serious processing cracks" means cracks without any discoloration that are so deep as to expose the pit; processing cracks that are not serious are not scoreable.

(b) (*A*) *classification.* Canned sweet cherries that possess a good character may be given a score of 18 to 20 points. "Good character" means that the cherries are thick-fleshed, are tender but not soft or noticeably flabby, and otherwise possess a good texture characteristic of canned sweet cherries that have been properly processed from well-matured cherries; that not more than 10 percent by count of the cherries may possess a reasonably good character; and that, in unpitted style, not more than 5 percent by count of the cherries may possess serious processing cracks.

(c) (*B*) *classification.* If the canned sweet cherries possess a reasonably good character, a score of 16 or 17 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the cherries are reasonably thick-fleshed, are reasonably tender but not more than slightly soft nor markedly flabby, and otherwise possess a texture characteristic of canned sweet cherries that have been properly processed from reasonably well-matured cherries; that not more than 10 percent by count of the cherries may possess a fairly good character provided, in unpitted cherries, none are thin-fleshed; and that, in unpitted style, not more than 10 percent by count of the cherries may possess serious processing cracks.

(d) *(C) classification.* If the canned sweet cherries possess a fairly good character, a score of 14 or 15 points may be given. Canned sweet cherries that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the cherries may be lacking in thickness of flesh but, in unpitted cherries, the total weight of pits is not more than 12 percent of the weight of drained cherries; may be variable in tenderness and texture, ranging from firm to soft, but characteristic of canned sweet cherries that may have been processed from slightly immature to slightly over-mature cherries; that not more than 10 percent by count of the cherries may be markedly flabby; and that, in unpitted style, serious processing cracks may be present.

(e) *(SStd) classification.* Canned sweet cherries that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule). Canned pitted sweet cherries in which the total weight of the pits is more than 12 percent of the weight of drained cherries are also "Below Standard in Quality—Thin Fleshed."

LOT CERTIFICATION TOLERANCES

§ 52.835 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned sweet cherries, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.836 *Score sheet for canned sweet cherries.*

Size and kind of container			
Container mark or identification			
Label			
Net weight (ounces)			
Vacuum (inches)			
Drained weight (ounces)			
Count per container			
Brix measurement			
Sirup designation (Extra heavy, heavy, etc.)			
Type ( ) Light ( ) Dark			
Style ( ) Unpitted ( ) Pitted			
Factors	**Score points**		
Color	30	(A) 27-30 (B) 24-26 (C) [1] 21-23 (SStd.) [1] 0-20	
Uniformity of size	20	(A) 18-20 (B) 16-17 (C) [1] 14-15 (SStd.) [1] 0-13	
Absence of defects	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (SStd.) [1] 0-20	
Character	20	(A) 18-20 (B) [1] 16-17 (C) [1] 14-15 (SStd.) [1] 0-13	
Total score	100		
Normal flavor and odor			
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CREAM STYLE CORN [1]

IDENTITY, COLORS, AND GRADES

§ 52.851 *Identity.* "Canned cream style corn" means the canned product properly prepared from the clean, sound, succulent kernels of sweet corn as defined in the definition and standard of identity for canned corn (21 CFR 51.20) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.852 *Colors of canned cream style corn.* (a) White.

(b) Golden or yellow.

§ 52.853 *Grades of canned cream style corn.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned cream style corn that possesses similar varietal characteristics; that is tender; that possesses a good color; that possesses a good consistency; that is practically free from defects; that possesses a very good flavor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 90 points: *Provided,* That the cream style corn may possess a reasonably good color, a reasonably good consistency, a good flavor, and may be reasonably tender, scoring not less than 26 points if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of canned cream style corn that possesses similar varietal characteristics; that is reasonably tender; that possesses a reasonably good color; that possesses a reasonably good consistency; that is reasonably free from defects; that possesses a good flavor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 80 points: *Provided,* That the cream style corn may possess a fairly good color, scoring not less than 7 points if the total score is not less than 80 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned cream style corn that possesses similar varietal characteristics; that is fairly tender; that possesses a fairly good color; that possesses a fairly good consistency; that is fairly free from defects; that possesses a fairly good flavor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned cream style corn that fails to meet the requirements of U. S. Grade C or U. S. Standard and may or may not meet the minimum standards of quality for canned cream style corn issued pursuant to the Federal Food, Drug, and Cosmetic Act.

FILL OF CONTAINER

§ 52.854 *Fill of container for canned cream style corn.* The standard of fill of container for canned cream style corn is not incorporated in the grades of the finished product, since fill of container, as such, is not a factor of quality for the purpose of these grades. The standard fill of container for canned cream style corn is a fill of not less than 90 percent of the total capacity of the container. Canned cream style corn that does not meet this requirement is "Below standard in fill."

FACTORS OF QUALITY

§ 52.855 *Ascertaining the grade.* (a) The grade of canned cream style corn is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency, absence of defects, tenderness and maturity, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factor:	*Points*
Color	10
Consistency	20
Absence of defects	20
Tenderness and maturity	30
Flavor	20
Total score	100

§ 52.856 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.857 *Color*—(a) *(A) classification.* Canned cream style corn that possesses a good color may be given a score of 9 or 10 points. "Good color" means that the cut kernels possess a practically uniform color typical of tender sweet corn and that the product is bright and is practically free from "off-variety" kernels.

(b) *(B) classification.* Canned cream style corn that possesses a reasonably good color may be given a score of 8 points. "Reasonably good color" means that the kernels possess a reasonably uniform color typical of reasonably tender sweet corn, and that the product may lack brightness but not to the extent that the appearance is materially affected, and is reasonably free from "off-variety" kernels.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) (*C*) *classification.* Canned cream style corn that possesses a fairly good color may be given a score of 6 or 7 points. Canned cream style corn that scores 7 points in this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, and if scored 6 points in this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a partial limiting rule). "Fairly good color" means that the kernels possess a fairly uniform color typical of fairly tender sweet corn and that the product may be dull, but not to the extent that the appearance is seriously affected, and is fairly free from "off-variety" kernels.

(d) (*SStd*) *classification.* Canned cream style corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 5 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.858 *Consistency*—(a) *General.* The factor of consistency refers to the viscosity of the product, to the degree of smoothness, and to the separation of free liquor.

(b) (*A*) *classification.* Canned cream style corn that possesses a good consistency may be given a score of 18 to 20 points. "Good consistency" means that the canned cream style corn, after stirring and emptying from the container to a dry flat surface, possesses a heavy cream-like consistency, with not more than a slight appearance of curdling, forms a slightly mounded mass, and that at the end of two minutes after emptying on the dry flat surface there is practically no separation of free liquor.

(c) (*B*) *classification.* If the canned cream style corn has a reasonably good consistency a score of 16 or 17 points may be given. "Reasonably good consistency" means that the canned cream style corn, after stirring and emptying from the container to a dry flat surface, has a reasonably good creamy consistency, with not more than a moderate appearance of curdling, may flow just enough to level off to a nearly uniform depth or may be moderately stiff and moderately mounded, and that at the end of two minutes after emptying on the dry flat surface there may be a slight separation of free liquor.

(d) (*C*) *classification.* Canned cream style corn that has a fairly good consistency may be given a score of 14 or 15 points. Canned cream style corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good consistency" means that the canned cream style corn, after stirring and emptying on a dry flat surface, may be thin but not excessively thin, or thick but not excessively dry, pasty, or crumbly, or moderately but not excessively curdled, and that at the end of two minutes after emptying on the dry flat surface there may be a moderate but not excessive separation of free liquor. The approximate circular area over which the product spreads when emptied on a dry flat surface shall not exceed 12 inches: *Provided,* That when the washed, drained residue of canned cream style corn contains more than 20 percent of alcohol insoluble solids, the average diameter of the area over which the product spreads shall not exceed 10 inches.[2]

(e) (*SStd*) *classification.* Canned cream style corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be graded "Below Standard in Quality" for the following reason: Excessively liquid.

§ 52.859 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from pieces of cob, husk, silk, or other harmless extraneous vegetable matter, from pulled kernels, and from discolored kernels or other defects.

(b) (*A*) *classification.* Canned cream style corn that is practically free from defects may be given a score of 18 to 20 points. "Practically free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, discolored kernels, or other defects may be present that do not more than slightly affect the appearance or eating quality of the product.

(c) (*B*) *classification.* If the canned cream style corn is reasonably free from defects, a score of 16 or 17 points may be given. Canned cream style corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, discolored kernels, or other defects may be present that do not materially affect the appearance or eating quality of the product.

(d) (*C classification.* Canned cream style corn that is fairly free from defects may be given a score of 14 or 15 points. Canned cream style corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, discolored kernels, or other defects may be present that do not seriously affect the appearance or eating quality of the product, and that:

(1) For each 20 ounces of net weight there may be present:

(i) Not more than 1 cubic centimeter of pieces of cob;[2] and

(ii) Not more than 1 square inch (1'' x 1'') of husk;[2] and that

(2) For each 2 ounces of net weight there may be present:

(i) Not more than 1 brown or black discolored kernel or piece of kernel;[2] and that

(3) For each 1 ounce of net weight there may be present:

(i) Not more than 6 inches of silk.[2]

(e) (*SStd*) *classification.* Canned cream style corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be graded "Below Standard in Quality" for the applicable reasons:

(1) Excessive discolored kernels.
(2) Excessive cob.
(3) Excessive husk.
(4) Excessive silk.

§ 52.860 *Tenderness and maturity*—(a) (*A*) *classification.* Canned cream style corn that is tender may be given a score of 27 to 30 points. "Tender" means that the kernels are in the milk, early cream, or middle cream stage of maturity, have a tender texture, and that pieces of the interior portions of corn kernels or ground kernels are characteristic of sweet corn in the milk, early cream, or middle cream stage of maturity.

(b) (*B*) *classification.* If the canned cream style corn is reasonably tender a score of 24 to 26 points may be given. Canned cream style corn that scores less than 26 points in this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a partial limiting rule). "Reasonably tender" means that the kernels are in the middle cream stage to late cream stage of maturity, have a reasonably tender texture, and that pieces of the interior portions of corn kernels or ground kernels are characteristic of sweet corn in the middle cream to late cream stage of maturity.

(c) (*C*) *classification.* Canned cream style corn that is fairly tender may be given a score of 22 or 23 points. Canned cream style corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender" means that the kernels are in the early dough or dough stage of maturity, may be firm but not hard or tough, and that pieces of the interior portions of corn kernels or ground kernels are characteristic of sweet corn in the early dough or dough stage of maturity. The weight of the alcohol insoluble solids of the washed, drained material[2] does not exceed 27 percent of the weight of such material.

(d) (*SStd*) *classification.* Canned cream style corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be graded "Below Standard in Quality."

§ 52.861 *Flavor*—(a) *General.* The factor of flavor refers to the palatability of the product. The natural flavor of the sweet corn and the effects of added sugar (sucrose) and salt are considered in evaluating this factor.

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[2] Determined as outlined in the Standard of Quality for Canned Sweet Corn (21 CFR 51.21) promulgated under the Federal Food, Drug, and Cosmetic Act.

(b) (*A*) *classification.* Canned cream style corn that possesses a very good flavor may be given a score of 18 to 20 points. "Very good flavor" means that the product including added seasoning ingredients has a very good characteristic flavor and odor typical of tender canned sweet corn.

(c) (*B*) *classification.* If the canned cream style corn possesses a good flavor, a score of 16 or 17 points may be given. "Good flavor" means that the product including added seasoning ingredients has a good characteristic flavor and odor typical of reasonably tender canned sweet corn.

(d) (*C*) *classification.* Canned cream style corn that possesses a fairly good flavor may be given a score of 14 or 15 points. Canned cream style corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(e) (*SStd*) *classification.* Canned cream style corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.862 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned cream style corn the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.863 *Score sheet for canned cream style corn.*

Number, size, and kind of container			----
Container marks or identification			----
Label			----
Net weight (ounces)			----
Vacuum (inches)			----
Color (white or golden)			----
Factors		Score points	
Color	10	(A) 9-10 (B) 8 (C) [1]6- 7 (SStd.) [2]0- 5	
Consistency	20	(A) 18-20 (B) 16-17 (C) [1]14-15 (SStd.) [2]0-13	
Absence of defects	20	(A) 18-20 (B) [1]16-17 (C) [1]14-15 (SStd.) [2]0-13	
Tenderness and maturity	30	(A) 27-30 (B) [1]24-26 (C) [2]22-23 (SStd.) [2]0-21	
Flavor	20	(A) 18-20 (B) 16-17 (C) 14-15 (SStd.) [2]0-13	
Total score	100		
Grade			----

[1] Indicates partial limiting rule.
[2] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED WHOLE KERNEL (OR WHOLE GRAIN) CORN [1]

IDENTITY, COLOR, AND GRADES

§ 52.881 *Identity.* "Canned whole kernel (or whole grain) corn" means the canned product properly prepared from the clean, sound, succulent kernels of sweet corn as defined in the definition and standard of identity for canned corn (21 CFR 51.20) issued pursuant to the Federal Food, Drug, and Cosmetic Act. The product is considered "Vacuum Pack" or "Vacuum Packed" when the liquid in the container [2] is not more than 20 percent of the net weight and the container is closed under conditions creating a high vacuum.

§ 52.882 *Color of canned whole kernel (or whole grain) corn.* (a) White.

(b) Golden or Yellow.

§ 52.883 *Grades of canned whole kernel (or whole grain) corn.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned whole kernel (or whole grain) corn that possesses similar varietal characteristics; that is tender; that possesses a good color; that is well cut; that is practically free from defects; that possesses a very good flavor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 90 points: *Provided,* That the canned whole kernel (or whole grain) corn may possess a reasonably good color, a good flavor, and may be reasonably well cut, if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of canned whole kernel (or whole grain) corn that possesses similar varietal characteristics; that is reasonably tender; that possesses a reasonably good color; that is reasonably well cut; that is reasonably free from defects; that possesses a good flavor; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 80 points: *Provided,* That the canned whole kernel (or whole grain) corn may possess a fairly good color, scoring not less than 7 points, and may be fairly well cut, if the total score is not less than 80 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned whole kernel (or whole grain) corn that possesses similar varietal characteristics; that is fairly tender; that possesses a fairly good color; that is fairly well cut; that is fairly free from defects; that possesses a fairly good flavor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned whole kernel (or whole grain) corn that fails to meet the requirements of U. S. Grade C or U. S. Standard and may or may not meet the minimum standards of quality for canned whole kernel (or whole grain) corn issued pursuant to the Federal Food, Drug, and Cosmetic Act.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.884 *Recommended fill of container.* The recommended fill of container for canned whole kernel (or whole grain) corn is not incorporated in the grades of the finished product, since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned whole kernel (or whole grain) corn be filled as full as practicable with the product.

§ 52.885 *Recommended minimum drained weight.* The minimum drained weight recommendations of Table No. I of this section are not incorporated in the grades of the finished product, since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of whole kernel (or whole grain) corn is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage and allowing to drain for two minutes. The drained weight is the weight of the sieve and the whole kernel (or whole grain) corn less the weight of the dry sieve. A sieve 8 inches in diameter is used for the No. 2½ size can (401" x 411") and smaller sizes and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I—RECOMMENDED MINIMUM DRAINED WEIGHTS, IN OUNCES, OF WHOLE KERNEL (OR WHOLE GRAIN) CORN (EXCEPT VACUUM PACK)

Container size or designation	Grade A, tenderness and maturity minimum drained weight (ounces)	Grades B, C, and Substandard tenderness and maturity minimum drained weight (ounces)
8 ounce, tall	5.25	5.50
No. 1 (picnic)	6.75	7.00
No. 300	9.25	9.50
No. 303	10.50	10.75
No. 2	12.75	13.25
No. 10	70.00	72.00

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] Determined as outlined in the Standard of Quality for Canned Sweet Corn (21 CFR 51.21) promulgated under the Federal Food, Drug, and Cosmetic Act.

FACTORS OF QUALITY

§ 52.886 *Ascertaining the grade.* (a) The grade of canned whole kernel (or whole grain) corn is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, cut, absence of defects, tenderness and maturity, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	Points
Color	10
Cut	10
Absence of defects	20
Tenderness and maturity	40
Flavor	20
Total score	100

§ 52.887 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.888 *Color*—(a) *(A) classification.* Canned whole kernel (or whole grain) corn that possesses a good color may be given a score of 9 or 10 points. "Good color" means that the kernels possess a practically uniform color typical of tender sweet corn and that the product is bright and is practically free from "off-variety" kernels.

(b) *(B) classification.* Canned whole kernel (or whole grain) corn that possesses a reasonably good color may be given a score of 8 points. "Reasonably good color" means that the kernels possess a reasonably uniform color typical of reasonably tender sweet corn and that the product may lack brightness but not to the extent that the appearance is materially affected and is reasonably free from "off-variety" kernels.

(c) *(C) classification.* Canned whole kernel (or whole grain) corn that possesses a fairly good color may be given a score of 6 or 7 points. Canned whole kernel (or whole grain) corn that scores 7 points in this classification shall not be graded above U. S. Grade B or U. S. Extra Standard and that scores 6 points in this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a partial limiting rule). "Fairly good color" means that the kernels possess a fairly uniform color typical of fairly tender sweet corn and that the product may be dull but not to the extent that the appearance is seriously affected and is fairly free from "off-variety" kernels.

(d) *(SStd) classification.* Canned whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 5 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.889 *Cut*—(a) *General.* The factor of cut refers to the degree of smoothness of the cut surface of the kernels, uniformity and depth of cut, and to the degree of freedom from adhering cob tissue.

(b) *(A) classification.* Canned whole kernel (or whole grain) corn which has been well cut may be given a score of 9 or 10 points. "Well cut" means that the appearance of the product is not more than slightly affected by the presence of ragged cut kernels, torn kernels, irregular cut kernels, and kernels with attached cob tissue.

(c) *(B) classification.* Canned whole kernel (or whole grain) corn in which the kernels are reasonably well cut may be given a score of 8 points. "Reasonably well cut" means that the appearance of the product is not materially affected by the presence of ragged cut kernels, torn kernels, irregular cut kernels, and kernels with attached cob tissue.

(d) *(C) classification.* Canned whole kernel (or whole grain) corn in which the kernels are fairly well cut may be given a score of 6 or 7 points. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Fairly well cut" means that the appearance of the product is not seriously affected by the presence of ragged cut kernels, torn kernels, irregular cut kernels, and kernels with attached cob tissue.

(e) *(SStd) classification.* Canned whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 5 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.890 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from pieces of cob, husk, silk, or other harmless extraneous vegetable matter, from pulled kernels, ragged kernels, crushed kernels, loose skins, and from damaged or seriously damaged kernels.

(1) "Damaged kernel" means any kernel affected by insect injury, or damaged by discoloration, pathological injury, or by other means to the extent that the appearance or eating quality is materially affected.

(2) "Seriously damaged kernel" means damaged to such an extent that the appearance or eating quality is seriously affected.

(b) *(A) classification.* Canned whole kernel (or whole grain) corn that is practically free from defects may be given a score of 18 to 20 points. "Practically free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels may be present that do not more than slightly affect the appearance or eating quality of the product.

(c) *(B) classification.* If the canned whole kernel (or whole grain) corn is reasonably free from defects a score of 16 or 17 points may be given. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels may be present that do not materially affect the appearance or eating quality of the product.

(d) *(C) classification.* Canned whole kernel (or whole grain) corn that is fairly free from defects may be given a score of 14 or 15 points. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that:

(1) For each 14 ounces of drained weight there may be present:

(i) Not more than 1 cubic centimeter of pieces of cob;[2]

(ii) Not more than 1 square inch (1" x 1") of husk;[2] and

(2) For each 2 ounces of drained weight there may be present:

(i) Not more than 1 brown or black discolored kernel or discolored piece of kernel;[2] and

(3) For each 1 ounce of drained weight there may be present:

(i) Not more than 7 inches of silk;[2] *Provided,* That pieces of cob, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels do not seriously affect the appearance or eating quality of the product.

(e) *(SStd) classification.* Canned whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be graded "Below Standard in Quality" for the applicable reasons:

(1) Excessive discolored kernels.
(2) Excessive cob.
(3) Excessive husk.
(4) Excessive silk.

§ 52.891 *Tenderness and maturity*—(a) *(A) classification.* Canned whole kernel (or whole grain) corn that is tender may be given a score of 36 to 40 points. "Tender" means that the kernels are in the milk or early cream stage of maturity and have a tender texture.

(b) *(B) classification.* If the canned whole kernel (or whole grain) corn is reasonably tender a score of 32 to 35 points may be given. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably tender" means that the kernels are in the cream stage of maturity and have a reasonably tender texture.

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[2] Determined as outlined in the Standard of Quality for Canned Sweet Corn (21 CFR 51.21) promulgated under the Federal Food, Drug, and Cosmetic Act.

(c) (*C*) *classification.* Canned whole kernel (or whole grain) corn that is fairly tender may be given a score of 30 or 31 points. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender" means that the kernels are in the early dough or dough stage and may be firm but not hard or tough. The weight of the alcohol insoluble solids[2] shall not exceed 27 percent of the drained weight.

(d) (*SStd*) *classification.* Canned whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 29 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule), and may also be graded "Below Standard in Quality."

§ 52.892 *Flavor*—(a) *General.* The factor of flavor refers to the palatability of the product. The natural flavor of the sweet corn and the effects of added sugar (sucrose) and salt are considered in evaluating this factor.

(b) (*A*) *classification.* Canned whole kernel (or whole grain) corn that possesses a very good flavor may be given a score of 18 to 20 points. "Very good flavor" means that the product including added seasoning ingredients has a very good characteristic flavor and odor typical of tender canned sweet corn.

(c) (*B*) *classification.* If the canned whole kernel (or whole grain) corn possesses a good flavor a score of 16 or 17 points may be given. "Good flavor" means that the product including added seasoning ingredients has a good characteristic flavor and odor typical of reasonably tender canned sweet corn.

(d) (*C*) *classification.* Canned whole kernel (or whole grain) corn that possesses a fairly good flavor may be given a score of 14 or 15 points. Canned whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(e) (*SStd*) *classification.* Canned whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.893 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned whole kernel (or whole grain) corn the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.894 *Score sheet for canned whole kernel (or whole grain) corn and canned whole kernel (or whole grain) and vacuum pack corn.*

Number, size, and kind of container	----
Container marks or identification	----
Label	----
Net weight (ounces)	----
Vacuum (inches)	----
Drained weight (ounces)	----
Color	----

Factors	Score points			
Color	10	(A)	9-10	
		(B)	8	
		(C)	[1]6-7	
		(SStd.)	[2]0-5	
Cut	10	(A)	9-10	
		(B)	8	
		(C)	[2]6-7	
		(SStd.)	[2]0-5	
Absence of defects	20	(A)	18-20	
		(B)	[2]16-17	
		(C)	[2]14-15	
		(SStd.)	[2]0-13	
Tenderness and maturity	40	(A)	36-40	
		(B)	[2]32-35	
		(C)	[2]30-31	
		(SStd.)	[2]0-29	
Flavor	20	(A)	18-20	
		(B)	16-17	
		(C)	[2]14-15	
		(SStd.)	[2]0-13	
Total score	100			
Grade				----

[1] Indicates partial limiting rule.
[2] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN WHOLE KERNEL (OR WHOLE GRAIN) CORN[1]

PRODUCT DESCRIPTION, COLOR, AND GRADES

§ 52.911 *Product description.* Frozen whole kernel (or whole grain) corn means the frozen product prepared from fresh, clean, sound, succulent kernels of sweet corn of either the white or golden (or yellow) varieties by removing husk and silk; by sorting, trimming, and washing; and by blanching before or after removal from the cob. The frozen whole kernel (or whole grain) corn is frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product.

§ 52.912 *Color of frozen whole kernel (or whole grain) corn.* (a) Golden (or Yellow).

(b) White.

§ 52.913 *Grades of frozen whole kernel (or whole grain) corn.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen whole kernel (or whole grain) corn that possesses similar varietal characteristics; that possesses a good flavor and odor; that is tender; that possesses a good color; that is practically free from defects; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 90 points: *Provided,* That the frozen whole kernel (or whole grain) corn may possess a reasonably good color if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen whole kernel (or whole grain) corn that possesses similar varietal characteristics; that possesses a good flavor and odor; that is reasonably tender; that possesses a reasonably good color; that is reasonably free from defects; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 80 points: *Provided,* That frozen whole kernel (or whole grain) corn may possess a fairly good color, scoring not less than 7 points if the total score is not less than 80 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of frozen whole kernel (or whole grain) corn that possesses similar varietal characteristics; that possesses a fairly good flavor and odor; that is fairly tender; that possesses a fairly good color; that is fairly free from defects; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of frozen whole kernel (or whole grain) corn that fails to meet the requirements of "U. S. Grade C" or "U. S. Standard."

FACTORS OF QUALITY

§ 52.914 *Ascertaining the grade.* (a) The grade of frozen whole kernel (or whole grain) corn may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and tenderness and maturity.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	10
Absence of defects	40
Tenderness and maturity	50
Total score	100

(c) The grade of frozen whole kernel (or whole grain) corn is determined immediately after thawing to the extent that the product is substantially free from ice crystals. The product is cooked to determine flavor and odor.

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[2] Determined as outlined in the Standard of Quality for Canned Sweet Corn (21 CFR 51.21) promulgated under the Federal Food, Drug, and Cosmetic Act.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) "Good flavor and odor" means that the product, after cooking, has a good characteristic normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product, after cooking, may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.915 *Ascertaining the rating of the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "36 to 40 points" means 36, 37, 38, 39, or 40 points).

§ 52.916 *Color*—(a) *(A) classification.* Frozen whole kernel (or whole grain) corn that possesses a good color may be given a score of 9 or 10 points. "Good color" means that the kernels possess a practically uniform color typical of tender sweet corn and that the product is bright and is practically free from "off-variety" kernels.

(b) *(B) classification.* If the frozen whole kernel (or whole grain) corn possesses a reasonably good color a score of 8 points may be given. "Reasonably good color" means that the kernels possess a reasonably uniform color typical of reasonably tender sweet corn and that the product is reasonably bright and reasonably free from "off-variety" kernels.

(c) *(C) classification.* Frozen whole kernel (or whole grain) corn that possesses a fairly good color may be given a score of 6 or 7 points. Frozen whole kernel (or whole grain) corn that scores 6 points in this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a partial limiting rule). "Fairly good color" means that the kernels possess a fairly uniform color typical of fairly tender sweet corn and that the product may be dull but not to the extent that the appearance is seriously affected, and is fairly free from "off-variety" kernels.

(d) *(SStd) classification.* Frozen whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 5 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.917 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from pieces of cob, husk, silk, or other harmless extraneous vegetable matter, from pulled kernels, ragged kernels, crushed kernels, loose skins, and from damaged or seriously damaged kernels.

(1) "Damaged kernel" means any kernel affected by insect injury or damaged by discoloration, pathological injury, or by other means to the extent that the appearance or eating quality is materially affected.

(2) "Seriously damaged kernel" means damaged to such an extent that the appearance or eating quality is seriously affected.

(b) *(A) classification.* Frozen whole kernel (or whole grain) corn that is practically free from defects may be given a score of 36 to 40 points. "Practically free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels may be present that do not more than slightly affect the appearance or eating quality of the product.

(c) *(B) classification.* If the frozen whole kernel (or whole grain) corn is reasonably free from defects a score of 32 to 35 points may be given. Frozen whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels may be present that do not materially affect the appearance or eating quality of the product.

(d) *(C) classification.* Frozen whole kernel (or whole grain) corn that is fairly free from defects may be given a score of 28 to 31 points. Frozen whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that pieces of cob, husk, silk, or other harmless extraneous vegetable matter, pulled kernels, ragged kernels, crushed kernels, loose skins, and damaged or seriously damaged kernels may be present that do not seriously affect the appearance or eating quality of the product.

(e) *(SStd) classification.* Frozen whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.918 *Tenderness and maturity*—(a) *(A) classification.* Frozen whole kernel (or whole grain) corn that is tender may be given a score of 45 to 50 points. "Tender" means that the kernels are in the milk or early cream stage of maturity and have a tender texture.

(b) *(B) classification.* If the frozen whole kernel (or whole grain) corn is reasonably tender a score of 40 to 44 points may be given. Frozen whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably tender" means that the kernels are in the cream stage of maturity and have a reasonably tender texture.

(c) *(C) classification.* Frozen whole kernel (or whole grain) corn that is fairly tender may be given a score of 36 to 39 points. Frozen whole kernel (or whole grain) corn that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender" means that the kernels are in the early dough or dough stage and have a fairly tender texture.

(d) *(SStd) classification.* Frozen whole kernel (or whole grain) corn that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 35 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.919 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen whole kernel (or whole grain) corn, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.920 *Score sheet for frozen whole kernel (or whole grain) corn.*

Number, size, and kind of container ---
Containers marks or identification ---
Label ---
Net weight (ounces) ---

Factors	Score points			
Color	10	(A) (B) (C) (SStd.)	9-10 8 [1] 6- 7 [2] 0- 5	
Absence of defects	40	(A) (B) (C) (SStd.)	36-40 [2] 32-35 [2] 28-31 [2] 0-27	
Tenderness and maturity	50	(A) (B) (C) (SStd.)	45-50 [2] 40-44 [2] 36-39 [2] 0-35	
Total score	100			

Grade ---
Flavor and odor ---

[1] Indicates partial limiting rule.
[2] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CORN-ON-THE-COB [1]

PRODUCT DESCRIPTION, COLOR, AND GRADES

§ 52.931 *Product description.* Frozen corn-on-the-cob is the product which is prepared from sound, properly matured, fresh sweet corn ears (Zea Mays L.) of either the white or golden (or yellow) varieties by removing husk and silk; by sorting, trimming, washing, and blanching; and which sweet corn ears are then frozen and stored at temperatures necessary for the preservation of the product.

§ 52.932 *Colors of frozen corn-on-the-cob.* (a) Golden (or yellow).

(b) White.

§ 52.933 *Grades of frozen corn-on-the-cob.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen corn-on-the-cob that is well developed; that possesses similar varietal characteristics; that possesses a good flavor and odor; that is practically uniform in size; that possesses a good color; that is practically free from defects; that is tender; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) U. S. Grade B of U. S. Extra Standard, is the quality of frozen corn-on-the-cob that is reasonably well developed; that possesses similar varietal characteristics; that possesses a fairly good flavor and odor; that is reasonably uniform in size and symmetry; that possesses a reasonably good color; that is reasonably free from defects; that is reasonably tender; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen corn-on-the-cob that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.934 *Ascertaining the grade.* (a) The grade of frozen corn-on-the-cob may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and tenderness and maturity.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors is:

Factors:	*Points*
Color	20
Absence of defects	40
Tenderness and maturity	40
Total score	100

(c) The grade of frozen corn-on-the-cob is determined immediately after the product has been thawed sufficiently so that the product is practically free from ice crystals.

(d) The product is cooked to determine flavor and odor.

(e) "Good flavor and odor" means that the product, after cooking, has a good, characteristic normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(f) "Fairly good flavor and odor" means that the product, after cooking, may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(g) "Practically uniform in size" means that the length of the longest ear in the sample does not exceed the length of the shortest ear by more than 1 inch and that the largest diameter of the largest ear in the sample does not exceed the largest diameter of the smallest ear by more than ½ inch.

(h) "Reasonably uniform in size" means that the length of the longest ear in the sample does not exceed the length of the shortest ear by more than 1 inch and that the largest diameter of the largest ear in the sample does not exceed the largest diameter of the smallest ear by more than ¾ inch.

(i) "Count of kernels per ear" means the approximate number of kernels on each ear in the sample.

(j) "Ear" means an individual ear of corn with husk and silk removed.

(k) "Well developed" means that the ear is well filled with kernels and that on ears of row varieties the appearance is not materially affected by irregular and curved rows of kernels.

(l) "Reasonably well developed" means that the ear is reasonably well filled with kernels and that on ears of row varieties the appearance is not seriously affected by irregular and curved rows of kernels.

(m) "Sample" means not less than two ears of frozen corn-on-the-cob drawn from a single shipping container or retail package.

§ 52.935 *Ascertaining the rating of the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.936 *Color*—(a) (*A*) *classification.* Frozen corn-on-the-cob that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the frozen corn-on-the-cob possesses a bright, practically uniform typical color of young and tender corn.

(b) (*B*) *classification.* Frozen corn-on-the-cob that possesses a reasonably good color may be given a score of 14 to 16 points. Frozen corn-on-the-cob that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen corn-on-the-cob possesses a reasonably bright, reasonably uniform typical color of reasonably young and reasonably tender corn.

(c) (*SStd*) *classification.* Frozen corn-on-the-cob that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.937 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from loose material, attached material, poorly trimmed ears, and from damaged kernels and seriously damaged kernels.

(1) "Loose material" means pieces of cob, kernels and portions of kernels, husk and portions of husk, and silk not attached to an ear.

(2) "Attached material" means silk and husk or portions of silk and husk attached to an ear.

(3) "Poorly trimmed ear" means that the end or ends of an ear are rough or ragged in appearance and that any attached stalk which may be present exceeds ¼ inch in length.

(4) "Damaged kernel" means any kernel damaged by mechanical injury and any kernel damaged by pathological injury, insect injury, discoloration, or damaged by other means to such an extent that the appearance or eating quality is materially affected. Mechanical injury means that the kernel is materially damaged by cutting or crushing. Kernels on the ends of the ear which are damaged by cutting shall not be considered as damaged by mechanical injury.

(5) "Seriously damaged kernel" mean damaged to such an extent that the appearance or eating quality is seriously affected. Kernels damaged by mechanical injury shall not be considered seriously damaged.

(b) (*A*) *classification.* Frozen corn-on-the-cob that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that loose material, attached material, or poorly trimmed ears that do not affect the appearance or eating quality of the product may be present in the sample; that not more than 5 percent, by count, of kernels in the sample are damaged or seriously damaged, but not more than ½ of one percent, by count, of all the kernels are seriously damaged.

(c) (*B*) *classification.* If the frozen corn-on-the-cob is reasonably free from defects a score of 28 to 33 points may be given. Frozen corn-on-the-cob that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that loose material, attached material, or poorly trimmed ears that do not materially affect the appearance or eating quality of the product may be present in the sample; that not more than 10 percent, by count, of kernels in the sample are damaged or seriously damaged, but not more than 1 percent, by count, of all the kernels are seriously damaged.

(d) (*SStd*) *classification.* Frozen corn-on-the-cob that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.938 *Tenderness and maturity*—(a) *General.* The tenderness and maturity of the kernels is referred to under this factor. The tenderness and maturity of the kernels is determined by examining at least 3 complete adjacent rows of kernels or an equivalent number if kernels are not in rows, after removal from each ear in the sample. The kernels are removed from the ear by cutting just above the tip cap.

(b) (*A*) *classification.* Frozen corn-on-the-cob that is tender may be given a score of 34 to 40 points. "Tender" means that the kernels in the sample are in the milk or early cream stage of maturity and have a tender texture.

(c) (*B*) *classification.* If the frozen corn-on-the-cob is reasonably tender a score of 28 to 33 points may be given. Frozen corn-on-the-cob that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably tender" means that the kernels in the sample are in the cream stage of maturity and have a reasonably tender texture.

(d) (*SStd*) *classification.* Frozen corn-on-the-cob the kernels of which are in the early dough or dough stage of maturity or that fails in any other respect to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.939 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen corn-on-the-cob the grade of such lot will be determined by averaging the total scores of all samples if:

(1) Not more than one-sixth of the samples drawn from the lot fail to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such samples which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all samples for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the samples drawn from the lot fall more than 4 points below the minimum score for the grade indicated by the average of the total scores;

(3) In addition to the above tolerances not more than one-sixth of the samples fail to meet the requirements with respect to uniformity of size and symmetry for the respective grade; and

(4) All samples drawn from the lot meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.940 *Score sheet for frozen corn-on-the-cob.*

Size and kind of container			------
Container marks or identification			------
Label			------
Net weight (ounces)			------
Number of ears (count)			------
Length of ears (inches)			------
Kernels per ear (count)			------
White or golden (yellow)			------
Development of ear			------
Similar varietal characteristics			------
Factors	Score points		
Color	20	(A) 17-20 (B) [1] 14-16 (D) [1] 0-13	
Absence of defects	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Tenderness and maturity	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Total score	100		
Uniformity of size			------
Flavor and odor			------
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CRANBERRY SAUCE [1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.951 *Product description.* Canned cranberry sauce is the jellied or semi-jellied product prepared from clean, sound, matured or fairly well-matured cranberries; a sweetening ingredient or sweetening ingredients, and water. Pectin may be added but only in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the cranberries. The mixture is concentrated and sufficiently processed by heat to assure preservation of the product in hermetically sealed containers. The soluble solids of the finished product is not less than 35 percent and not more than 45 percent.

§ 52.952 *Styles of canned cranberry sauce*—(a) *Style I.* Jellied or strained (typical of a jellied product prepared from strained cranberries).

(b) *Style II.* Whole (typical of a semi-jellied product prepared from whole or partially whole cranberries).

§ 52.953 *Grades of canned cranberry sauce.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned cranberry sauce that possesses a good color; that possesses a good consistency and good texture; that is practically free from defects; that possesses a good flavor and odor; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned cranberry sauce that possesses a fairly good color; that possesses a fairly good consistency and a fairly good texture; that is fairly free from defects; that possesses a fairly good flavor and odor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned cranberry sauce that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.954 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with cranberry sauce and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.955 *Ascertaining the grade.* The grade of canned cranberry sauce may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency and texture, absence of defects, and flavor and odor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Consistency and texture	40
Absence of defects	20
Flavor and odor	20
Total score	100

§ 52.956 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.957 *Color*—(a) (*A*) *classification.* Canned cranberry sauce that possesses a good color may be given a score of 17 to 20 points. "Good color" means the bright, dark red color typical of canned cranberries which color is free from any dullness.

(b) (*C*) *classification.* If the canned cranberry sauce possesses a fairly good color, a score of 14 to 16 points may be given. Canned cranberry sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means the red color typical of canned cranberries, which color may be slightly dull or may indicate slight evidence of oxidation but is not off color.

(c) (*SStd*) *classification.* Canned cranberry sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.958 *Consistency and texture*—(a) (*A*) *classification.* Canned cranberry sauce that possesses a good consistency and good texture may be given a score of 34 to 40 points. "Good consistency and good texture" has the following meanings with respect to the following styles of canned cranberry sauce:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(1) *Jellied or strained.* The gel is tender to slightly firm and there may be evidence of a reasonable separation of free liquid.

(2) *Whole.* The skin particles and the semi-jellied portions are reasonably tender and the fruit, seed, and skin particles are dispersed reasonably uniform throughout the product.

(b) *(C) classification.* If the canned cranberry sauce possesses a fairly good consistency and a fairly good texture, a score of 26 to 33 points may be given. Canned cranberry sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good consistency and fairly good texture" has the following meanings with respect to the following styles of canned cranberry sauce:

(1) *Jellied or strained.* The gel may lack firmness or may be stiff but is not tough or rubbery and there may be evidence of separation of free liquid which is not excessive.

(2) *Whole.* The skin particles and the semi-jellied portions are fairly tender and the fruit, seed, and skin particles are dispersed fairly uniform throughout the product and there may be evidence of separation of free liquid which is not excessive.

(c) *(SStd) classification.* Canned cranberry sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.959 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from foreign material and objectionable material and from harmless extraneous particles in Style I, Jellied or strained; and from defective cranberries and foreign berries and particles thereof, fine stems, foreign material and objectionable material, and other defects in Style II, Whole.

(b) *(A) classification.* Canned cranberry sauce that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" has the following meanings with respect to the following styles of cranberry sauce:

(1) *Jellied or strained.* The product is free from foreign material and objectionable material, is free from any harmless extraneous particles that exceed the area of a circle 3/16 inch in diameter; and is practically free from harmless extraneous particles that are the equivalent in area of a circle 3/16 inch or less in diameter.

(2) *Whole.* There may be present for each 12 ounces of net weight not more than 3 defective cranberries or foreign berries and not more than 4 fine stems ¾ inch or more in length; the product is free from foreign material and objectionable material and is practically free from other defects which affect materially the appearance or edibility of the product.

(c) *(C) classification.* If the canned cranberry sauce is fairly free from defects, a score of 14 to 16 points may be given. Canned cranberry sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meanings with respect to the following styles of cranberry sauce:

(1) *Jellied or strained.* The product is free from foreign material and objectionable material; is practically free from harmless extraneous particles that exceed the area of a circle 3/16 inch in diameter; and is fairly free from harmless extraneous particles that are the equivalent in area of a circle 3/16 inch or less in diameter.

(2) *Whole.* There may be present for each 12 ounces of net weight not more than 6 fine stems ¾ inch or more in length; the product is free from foreign material and objectionable material and is fairly free from other defects which affect materially the appearance or edibility of the product.

(d) *(SStd) classification.* Canned cranberry sauce that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.960 *Flavor and odor*—(a) *(A) classification.* Canned cranberry sauce that possesses a good flavor and odor may be given a score of 17 to 20 points. "Good flavor and odor" means that the product possesses a good, characteristic, slightly tart flavor typical of cooked cranberries and that the product is free from any trace of a caramelized flavor, abnormal flavor, or abnormal odor.

(b) *(C) classification.* If the canned cranberry sauce possesses a fairly good flavor and odor, a score of 14 to 16 points may be given. Canned cranberry sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor and odor" means that the product possesses a normal flavor typical of cooked cranberries and that the product is free from objectionable flavors and objectionable odors of any kind.

(c) *(SStd) classification.* Canned cranberry sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATION

§ 52.961 *Explanation of terms.* (a) "Soluble solids" content is determined refractometrically without correction for water-insoluble solids.

LOT CERTIFICATION TOLERANCES

§ 52.962 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned cranberry sauce, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.963 *Score sheet for canned cranberry sauce.*

Size and kind of container			
Container mark or identification			
Label			
Net weight (ounces)			
Vacuum (inches)			
Style			
Soluble solids (per cent by refractometer)			
Factors	Score points		
Color	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Consistency and texture	40	(A) 34-40 (C) [1] 28-33 (D) [1] 0-27	
Absence of defects	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Flavor and odor	20	(A) 17-20 (C) [1] 14-16 (D) [1] 0-13	
Total score	100		
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DRIED CURRANTS [1]

PRODUCT DESCRIPTION, TYPES, AND GRADES

§ 52.981 *Product description.* Dried currants are dried grapes of such Vinifera varieties as Black Corinth that have been properly processed by stemming, capstemming, and cleaning.

§ 52.982 *Types (varieties) of dried currants*—(a) *Type I.* Zante type (domestic).

(b) *Type II.* Other than Zante type (domestic), such as Amalias, Patras, Vostizza, and Zante varieties.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.983 *Grades of dried currants.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of dried currants that possess similar varietal characteristics; that possess a good typical color; that possess a good characteristic flavor; that show development characteristic of dried currants prepared from well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table I of this section):

(1) Not more than 2 pieces of stem per 16 ounces of dried currants may be present;

(2) Not more than 1½ percent, by weight, of dried currants may possess capstems;

(3) Not more than 1 percent, by weight, of dried currants may be poorly developed blowovers;

(4) Not more than 2 percent, by weight, of dried currants may be damaged;

(5) Not more than 5 percent, by weight, of dried currants may be visibly sugared; and

(6) Not more than 1 percent, by weight, of dried currants may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than ½ of 1 percent, by weight, of dried currants may be affected by decay.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of dried currants that possess similar varietal characteristics; that possess a reasonably good typical color; that possess a good characteristic flavor; that show development characteristic of dried currants prepared from reasonably well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table I of this paragraph):

TABLE I—MAXIMUMS ALLOWABLE FOR DEFECTS IN DRIED CURRANTS

Defects	U. S. Grade A or U. S. Fancy	U. S. Grade B or U. S. Choice	Sub-standard
	Maximum count (per 16 ounces)		
Pieces of stem	2	3	
	Maximum (by weight) (percent)		
Currants with capstems	1½	2	No limit.
Poorly developed, blowovers.	1	2	do
Damaged	2	3	do
Visibly sugared	5	10	do
Mold, decay, fermentation, insect infestation, imbedded dirt, or other foreign material.	1	2	
	But not more than		
Decay	½	1	

(1) Not more than 3 pieces of stem per 16 ounces of dried currants may be present;

(2) Not more than 2 percent, by weight, of dried currants may possess capstems;

(3) Not more than 2 percent, by weight, of dried currants may be poorly developed, blowovers;

(4) Not more than 3 percent, by weight, of dried currants may be damaged;

(5) Not more than 10 percent, by weight, of dried currants may be visibly sugared; and

(6) Not more than 2 percent, by weight, of dried currants may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 1 percent, by weight, of dried currants may be affected by decay.

(c) "Substandard" is the quality of dried currants that fail to meet the requirements of U. S. Grade B or U. S. Choice.

DEFINITIONS AND EXPLANATIONS

§ 52.984 *Explanation of terms.* (a) A "piece of stem" means a portion of the branch or main stem.

(b) "Capstems" means small woody stems exceeding ⅛ inch in length which attach the grapes to the branches of the bunch. A currant for each capstem which is not attached to a currant is included and weighed with "currants with capstems" in ascertaining compliance with the allowance permitted.

(c) "Poorly developed, blowovers" refers to currants that are immature or hard, contain practically no flesh, are very light in weight, and have very coarse wrinkles.

(d) "Damaged" currants means currants affected by insect injury or injury from sunburn, scars, mechanical or other means which seriously affects the appearance, edibility, keeping quality, or shipping quality of the currants.

(e) "Visibly sugared" means the accumulation of crystallized fruit sugars in the flesh of the currant or on the surface which is readily apparent.

(f) "Mold" means mold filaments or spores (often characterized by a condition wherein the skin of the currant appears to have been dissolved, leaving a slimy or sticky appearance, and often resulting in a positive reaction when submerged in a 3-percent hydrogen peroxide solution).

(g) "Affected by insect infestation" means that the currants show the presence of insects, insect fragments, or excreta. No live insects are permitted.

WORK SHEET

§ 52.985 *Work sheet for dried currants.*

Size of case or package				
Markings				
Label or brand				
Net weight				
Type				
Moisture content				
	A	B	SStd	
Similar varietal characteristics				
Color				
Flavor				
Development				
Defects	Maximum (per 16 ounces)			
Pieces of stem	2	3		
	(Maximum by weight) (percent)			
Currants with capstems.	1½	2	No limit.	
Poorly developed, blowovers.	1	2	Do.	
Damaged	2	3	Do.	
Visibly sugared	5	10	Do.	
Mold, decay, fermentation, insect infestation, imbedded dirt, foreign material.	1	2		
	But not more than			
Decay	½	1		
Grade				

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DATES [1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1001 *Product description.* Dates are the properly cured fresh fruit of the date tree (Phoenix dactylifera).

§ 52.1002 *Styles of dates.* (a) "Whole unpitted dates" or "whole dates" means whole dates from which the pits have not been removed and which may or may not be slit longitudinally.

(b) "Whole pitted dates" or "pitted dates" means whole dates from which the pits have been removed.

(c) "Cut dates" means pitted dates cut into pieces not less than ½ inch in any dimension.

(d) "Macerated dates" means dates that are ground, chopped, mashed, or broken, or that are cut or sliced into small pieces less than ½ inch in any dimension.

§ 52.1003 *Grades for dates.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of whole dates or whole pitted dates of one variety that are practically uniform in color; are practically uniform in size; contain not less than 80 percent, by weight, that possess a good character and the remainder possesses a reasonably good character; may contain not more than a total of 1 percent, by weight, that possess semi-dry calyx ends, dry calyx ends, or are improperly ripened; do not exceed the allowances and limitations for defects specified in Chart No. I of § 52.1008 (b); and, with respect to whole pitted dates, there may be present not more than 1 whole pit or 2 pit fragments for each 25 ounces of whole pitted dates.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of whole dates or whole pitted dates of one variety that are reasonably uniform in color; are reasonably uniform in size; contain not less than 85 percent, by weight, that possess at least a reasonably good character and the remainder possesses not less than a fairly good character; may contain not more than a total of 5 percent, by weight, that possess semi-dry calyx ends or dry calyx ends or are improperly ripened, but, of such dates, not more than an aggregate of 1 percent, by weight, of all the dates may possess dry calyx ends or may be improperly ripened; do not exceed the allowances and limitations for defects specified in Chart No. II of § 52.1008 (b); and, with respect to whole pitted dates, there may be present not more than 1 whole pit or 2 pit fragments for each 25 ounces of whole pitted dates.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of whole dates or whole pitted dates of one variety that are fairly uniform in color; are fairly uniform in size; contain not less than 90 percent, by weight, that possess at least a fairly good character and the remainder may fail to possess fairly good character or may possess dry calyx ends or may be improperly ripened; do not exceed the allowances and limitations for defects specified in Chart No. III of § 52.1008 (c); and, with respect to whole pitted dates, there may be present not more than 1 whole pit or 2 pit fragments for each 25 ounces of whole pitted dates.

(d) "U. S. Grade D" or "Substandard" is the quality of whole dates or whole pitted dates that fail to meet the requirements of "U. S. Grade C" or "U. S. Standard."

(e) "U. S. Grade D (Cut Dates)" or "Substandard (Cut Dates)" and "U. S. Grade D (Macerated Dates)" or "Substandard (Macerated Dates)" are the grade designations for cut dates and macerated dates whether or not produced from U. S. Grade D or Substandard dates or dates of better quality.

DEFINITIONS AND EXPLANATIONS

§ 52.1004 *Definitions of varying degrees of uniformity of color.* (a) "Practically uniform in color" means, with respect to dates that are predominantly light amber in color, that there may be not more than 5 percent by count of dates that are dark amber in color; and, with respect to dates that are predominantly dark amber in color, that there may be not more than 5 percent by count of dates that are light amber in color.

(b) "Reasonably uniform in color" means, with respect to dates that are predominantly light amber in color, that there may be not more than 10 percent by count of dates that are dark amber in color; and, with respect to dates that are predominantly dark amber in color, that there may be not more than 10 percent by count of dates that are light amber in color.

(c) "Fairly uniform in color" means, with respect to dates that are predominantly light amber in color, that there may be not more than 20 percent by count of dates that are dark amber in color; and, with respect to dates that are predominantly dark amber in color, that there may be not more than 20 percent by count of dates that are light amber in color.

§ 52.1005 *Definitions of varying degrees of uniformity of size.* (a) "Practically uniform in size" means that not more than a total of 10 percent by weight of whole unpitted dates or whole pitted dates may be conspicuously larger or smaller than the approximate average size of the dates in the container.

(b) "Reasonably uniform in size" means that not more than a total of 15 percent by weight of whole unpitted dates or whole pitted dates may be conspicuously larger or smaller than the approximate average size of the dates in the container.

(c) "Fairly uniform in size" means that not more than a total of 20 percent by weight of whole unpitted dates or whole pitted dates may be conspicuously larger or smaller than the approximate average size of the dates in the container.

§ 52.1006 *Definitions of varying degrees of character.* (a) "Good character" is the character of a date which is well developed, well fleshed, soft, and translucent.

(b) "Reasonably good character" is the character of a date which is reasonably well developed, reasonably well fleshed, pliable, and semi-translucent; or is the character of a date which has reached a stage of maturity that may be expected to develop into a reasonably well-ripened date.

(c) "Fairly good character" is the character of a date which is fairly well developed, fairly well fleshed, and may be firm but is pliable; or is the character of a date which has reached a stage of maturity that may be expected to develop into a fairly well-ripened date. Dates of this character may possess semi-dry calyx ends.

(d) "Semi-dry calyx end" means that the flesh at the stem end of a date, constituting not less than one-eighth and not more than one-fourth of the date, is slightly lacking in character, is noticeably firm and materially more dry than the balance of the date.

(e) "Dry calyx end" means that the flesh at the stem end of the date, constituting more than one-fourth of the date, is materially lacking in character, hard, and materially more dry than the balance of the date.

(f) "Improperly ripened" means evidence of "green shrivel" of the date or that the date possesses a puffy flesh or a decidedly rubbery texture resulting from failure of the tissue of the date to reach a desirable soft, pliable condition.

§ 52.1007 *Definition of defects.* (a) "Damaged by discoloration" is the presence of a dark area in the flesh of the date, which dark area is visible through the skin and is more than one-fourth (1/4) inch in width and extends more than the equivalent of half the length of the date, such darkening being of natural origin and not caused by mold or other organism.

(b) "Damaged by broken skin" is any rupture of the skin in a manner to expose the flesh of the date, the shortest dimension of such exposed area being not less than three-sixteenths (3/16) inch.

(c) "Damaged by checking" is the presence of fine lines, resulting from water injury, affecting the surface of the skin over an area not less than one-fourth of the total surface of the date.

(d) "Seriously damaged by checking" is the presence of heavy lines, resulting from water injury, seriously affecting the surface of the skin over an area not less than one-fourth of the total surface of the date.

(e) "Damaged by deformity" is any abnormal shape sufficient to produce an appearance discernibly at variance with the normal shape that is typical of the variety.

(f) "Damaged by puffiness" is the condition of a date of which the skin is soft and pliable and from which the skin is separated from the flesh in a balloon-like fashion, over an area not less than one-half of the total surface of the date. Soft skins which have returned and adhere to the flesh of the date are not considered "damaged by puffiness."

(g) "Seriously damaged by puffiness" is the condition of a date of which the skin is dry, hard, and brittle and from which the skin is separated from the flesh over an area not less than one-half of the total surface of the date.

(h) "Damaged by scars" are any blemishes that affect the exterior of the date and which are not less than three-sixteenths (3/16) inch in the shortest dimension.

(i) "Damaged by sunburn" is an area, usually light in color, scarred by the heat of the sun, such area being not less than three-sixteenths (3/16) inch in the shortest dimension.

(j) "Damaged by insect injury" is any blemish, resulting from the activity of insects or mites, distributed over an area of not less than one-eighth of the total surface of the date.

(k) "Damaged by improper hydrating" means that the date has been injured by excessive heat or that the hydrating process is incomplete.

(l) "Damaged by mashing" means any physical injury to the flesh and skin of the date leaving the date partially mangled but otherwise whole.

(m) "Damaged by mechanical injury" means excessive trimming or similar injury that damages the appearance or that damages or affects the eating quality of the whole date or the whole unpitted date.

(n) "Damaged by lack of pollination" means, with respect to whole unpitted dates, that pollination of the date was not accomplished, such condition being manifested by the absence of a pit in the whole unpitted dates or by thin, immature appearance of the date.

(o) "Damaged by blacknose" is severe checking in which the flesh becomes dark, crusty, and dry and which severe checking affects an area greater than one-eighth of the total surface of the date.

(p) "Damaged by side spot" means a very dark area, which generally is circular in appearance, extending into the flesh of the date and, when decayed tissue or mold is not present, affecting in the aggregate an area not less than the area of a circle three-sixteenths (3/16) inch in diameter.

(q) "Damaged by black scald" means the collapse, death, and blackening of the flesh along the side of the date, usually accompanied by a bitter taste in the affected area.

(r) "Damaged by other defects" means any injury or defect or group of defects not defined in this section (such as, but not limited to, heavy sugaring, and excessive scars not described in the definition "damaged by scars,") which materially affect the appearance, edibility, or keeping quality of the dates.

(s) "Affected by souring" is evidenced by the breakdown of the sugars into alcohol and acetic acid by yeasts and bacteria.

(t) "Affected by mold" is the presence of visible mold.

(u) "Affected by dirt" is the presence of any quantity of such substance.

(v) "Affected by insect infestation" is the presence of dead insects, insect parts, or excreta. (No live insects are permitted.)

(w) "Affected by foreign material" is the presence of any quantity of such substances.

(x) "Affected by decay" is a state of decomposition.

FACTORS OF QUALITY

§ 52.1008 *Specifications of allowances and limitations for defects with respect to whole dates and whole pitted dates*—(a) *U. S. Grade A or U. S. Fancy.* The following total allowance and limitations are to be used in ascertaining whether whole dates or whole pitted dates are U. S. Grade A or U. S. Fancy:

CHART NO. I

TOTAL ALLOWANCE

Not more than a total of 10 percent[1] for the following defects:

- Damaged by:
  - Discoloration.
  - Broken skin.
  - Checking.
  - Deformity.
  - Puffiness.
  - Scars.
  - Sunburn.
  - Insect injury.
  - Improper hydrating.
  - Mashing.
  - Mechanical injury.
  - Lack of pollination
  - Blacknose.
- Damaged by:
  - Side spot.
  - Black scald.
  - Other defects.
- Seriously damaged by puffiness.
- Seriously damaged by checking.
- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

LIMITATIONS

Not more than ⅗ of the total allowance, or 6 percent,[1] may be the following:

- Damaged by:
  - Side spot.
  - Black scald.
  - Other defects.
- Affected by:
  - Souring.
- Affected by:
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than ⅖ of the total allowance, or 4 percent,[1] may be the following:

- Affected by:
  - Souring.
  - Mold.
  - Dirt.
- Affected by:
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than 1/10 of the total allowance, or 1 percent,[1] may be the defect shown below:

Affected by decay

(b) *U. S. Grade B or U. S. Choice.* The following allowances and limitations are to be used in ascertaining whether whole dates or whole pitted dates are U. S. Grade B or U. S. Choice:

CHART NO. II

ALLOWANCES

Not more than 15 percent[1] may be the following defect:

Seriously damaged by checking

Not more than 20 percent[1] may be the following defect:

Damaged by broken skin

ADDITIONAL ALLOWANCE

Not more than a total of 15 percent[1] for the following defects:

- Damaged by:
  - Deformity.
  - Puffiness.
  - Scars.
  - Sunburn.
  - Insect injury.
  - Improper hydrating.
  - Mashing.
  - Mechanical injury.
  - Lack of pollination.
  - Blacknose.
- Damaged by:
  - Side spot.
  - Black scald.
  - Other defects.
- Seriously damaged by puffiness.
- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

LIMITATIONS

Not more than ⅔ of the additional allowance, or 10 percent,[1] may be the following:

- Damaged by:
  - Lack of pollination.
  - Blacknose.
  - Side spot.
  - Black scald.
  - Other defects.
- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than ⅓ of the additional allowance, or 5 percent,[1] may be the following:

- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than 1/15 of the additional allowance, or 1 percent,[1] may be the defect shown below:

Affected by decay

(c) *U. S. Grade C or U. S. Standard.* The following total allowance and limitations are to be used in ascertaining whether whole dates or whole pitted dates are U. S. Grade C or U. S. Standard:

CHART NO. III

TOTAL ALLOWANCE

Not more than a total of 20 percent[1] for the following defects:

- Damaged by:
  - Deformity.
  - Scars.
  - Sunburn.
  - Insect injury.
  - Improper hydrating.
  - Mashing.
  - Mechanical injury.
  - Lack of pollination.
  - Blacknose.
  - Side spot.
  - Black scald.
  - Other defects.
- Seriously damaged by puffiness.
- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

LIMITATIONS

Not more than ½ of the total allowance, or 10 percent,[1] may be the following:

- Damaged by:
  - Lack of pollination.
  - Blacknose.
  - Side spot.
  - Black scald.
  - Other defects.
- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than ¼ of the total allowance, or 5 percent,[1] may be the following:

- Affected by:
  - Souring.
  - Mold.
  - Dirt.
  - Insect infestation.
  - Foreign material.
  - Decay.

Not more than 1/10 of the total allowance, or 2 percent,[1] may be the defect shown below:

Affected by decay

WORK SHEET

§ 52.1009 *Work sheet for dates.*

Size and kind of container	------
Container mark or identification	------
Label or brand	------
Net weight	------
Style	------
Count (per lb.)	------
Moisture content (if determined)	------
Uniformity of color (percent by count)	
Practically uniform ----% light ----% dark amber	------
Reasonably uniform ----% light ----% dark amber	------
Fairly uniform ----% light ----% dark amber	------
Uniformity of size (percent by weight)	
Practically uniform: ----% larger; ----% smaller	------
Reasonably uniform: ----% larger; ----% smaller	------
Fairly uniform ----% larger; ----% smaller	------
Whole pits or pit fragments	------
Character:	
(A) Good: ----% Reasonably good	------
(B) Reasonably good: ----% Fairly good	------
(C) Fairly good: ----% fail to meet "fairly good"	
------ Semi-dry calyx ends	----%
------ Dry calyx ends or improperly ripened	----%
Defects: (percent by weight)	
Affected by decay	----%
Affected by souring, mold, dirt, insect infestation, foreign material	----%
Damaged by lack of pollination, blacknose, side spot, black scald, other defects	----%
Sub-total above defects	----%
Damaged by puffiness[1]	----%
Seriously damaged by puffiness	----%
Damaged by checking[2]	----%
Seriously damaged by checking[3]	----%
Damaged by broken skin[4]	----%
Damaged by discoloration[5]	----%
Damaged by deformity, scars, sunburn, insect injury, improper hydrating, mashing, mechanical injury	----%
Grand total all defects	----%
U. S. Grade (including all factors)	------

[1] No limit in U. S. Grade C or U. S. Standard for "damaged by puffiness."

[2] No limit in U. S. Grade B or U. S. Choice and in U. S. Grade C or U. S. Standard for "damaged by checking."

[3] No limit in U. S. Grade C or U. S. Standard for "seriously damaged by checking."

[4] No limit in U. S. Grade C or U. S. Standard for "damaged by broken skin."

[5] No limit in U. S. Grade B or U. S. Choice and in U. S. Grade C or U. S. Standard for "damaged by discoloration."

SUBPART—UNITED STATES STANDARDS FOR GRADES OF DRIED FIGS[1]

PRODUCT DESCRIPTION, TYPES, STYLES, SIZES, AND GRADES

§ 52.1021 *Product description.* Dried figs are the fruit of the fig tree (Ficus carica) from which the greater portion of moisture has been removed. Before packing the dried figs have been thoroughly cleaned. The figs may or may not be sulphured or otherwise bleached.

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[1] Percentages are by weight.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.1022 *Types (colors) of dried figs.* (a) "White" or "white figs" are white to dark brown in color and include such varieties as Calimyrna, Adriatic, and Kadota.

(b) "Black" or "black figs" are black or dark purple in color as in the Mission varieties.

§ 52.1023 *Styles and types of packs of dried figs.* (a) "Whole" or "whole figs" means dried figs in the following types of packs:

(1) Style I (a), "Whole, loose, figs" are whole dried figs, not materially changed from their original dried form, that are packed without special arrangement in a container.

(2) Style I (b), "Whole, pulled, figs" are whole dried figs which are changed from their original dried form by purposely flattening and shaping and are placed in a definite arrangement in a container. The dried figs may or may not be split slightly across the eye but are not split to the extent that the seed cavity is materially exposed.

(3) Style I (c), "Whole, layered, figs" are whole dried figs which are changed from their original dried form by purposely flattening and shaping and are placed in a staggered-layer arrangement in a container. The figs are split across the base to the extent that the seed cavity may be materially exposed.

(b) Style II, "Sliced" or "sliced figs" means dried whole figs that are cut into slices not less than ¼ inch in thickness; such slices are not recut showing more than two cut surfaces.

§ 52.1024 *Sizes of Style I (a), whole, loose, dried figs.* (a) The sizes of Style I (a), whole, loose, dried figs for the following varieties are:

BLACK MISSION

No. 1 size (Jumbo size)—$1\frac{5}{16}$ inches or larger in width.

No. 2 size (Extra Fancy size)—$1\frac{3}{16}$ inches to, but not including, $1\frac{5}{16}$ inches in width.

No. 3 size (Fancy size)—$1\frac{1}{16}$ inches to, but not including, $1\frac{3}{16}$ inches in width.

No. 4 size (Extra Choice size)—$\frac{15}{16}$ inch to, but not including, $1\frac{1}{16}$ inches in width.

No. 5 size (Choice size)—$\frac{13}{16}$ inch to, but not including, $\frac{15}{16}$ inch in width.

No. 6 size (Standard size)—less than $\frac{13}{16}$ inch in width.

ADRIATIC OR KADOTA

No. 1 size (Jumbo size)—$1\frac{8}{16}$ inches or larger in width.

No. 2 size (Extra Fancy size)—$1\frac{5}{16}$ inches to, but not including, $1\frac{8}{16}$ inches in width.

No. 3 size (Fancy size)—$1\frac{3}{16}$ inches to, but not including, $1\frac{5}{16}$ inches in width.

No. 4 size (Extra Choice size)—$1\frac{1}{16}$ inches to, but not including, $1\frac{3}{16}$ inches in width.

No. 5 size (Choice size)—$\frac{15}{16}$ inch to, but not including, $1\frac{1}{16}$ inches in width.

No. 6 size (Standard size)—Less than $\frac{15}{16}$ inch in width.

CALIMYRNA

No. 1 size (Jumbo size)—$1\frac{9}{16}$ inches or larger in width.

No. 2 size (Extra Fancy size)—$1\frac{6}{16}$ inches to, but not including, $1\frac{9}{16}$ inches in width.

No. 3 size (Fancy size)—$1\frac{3}{16}$ inches to, but not including, $1\frac{6}{16}$ inches in width.

No. 4 size (Extra Choice size)—$1\frac{1}{16}$ inches to, but not including, $1\frac{3}{16}$ inches in width.

No. 5 size (Choice size)—$\frac{15}{16}$ inch to, but not including, $1\frac{1}{16}$ inches in width.

No. 6 size (Standard size)—Less than $\frac{15}{16}$ inch in width.

(b) In determining compliance with size requirements listed in paragraph (a) of this section, Style I (a), whole, loose, dried figs will be considered as of one size if not more than 10 percent by count of the figs varies from the size range. "Uniformity of size," as such, is not a requirement for Style I (a), whole, loose, dried figs.

§ 52.1025 *Grades of dried figs (not for manufacturing)*—(a) *(A) classification.* "U. S. Grade A" or "U. S. Fancy" is the quality of dried figs that are of one variety; are well-matured with not more than 5 percent by count of reasonably well-matured dried figs; are practically uniform in size, except for Style I (a) whole, loose, figs and Style II, sliced figs; possess a practically uniform typical color; possess a good distinct, typical, and normal dried fig flavor and odor; are free from foreign material; and do not exceed the maximum allowances and limitations as specified in Table No. I (Moisture), Table No. II (Defects: Styles I (a), I (b), and I (c), whole figs), or Table No. III (Defects: Style II, sliced figs) of this subpart.

(b) *(B) classification.* "U. S. Grade B" or "U. S. Choice" is the quality of dried figs that are of one variety; are reasonably well-matured with not more than 10 percent by count of fairly well-matured dried figs; are reasonably uniform in size, except for Style I (a), whole, loose, figs and Style II, sliced figs; possess a reasonably uniform typical color; possess a reasonably good, distinct, typical, and normal dried fig flavor and odor; are free from foreign material; and do not exceed the maximum allowances and limitations as specified in Table No. I (Moisture), Table No. IV (Defects: Styles I (a), I (b), and I (c), whole figs), or Table No. V (Defects: Style II, sliced figs) of this subpart.

(c) *(C) classification.* "U. S. Grade C" or "U. S. Standard" is the quality of dried figs that are of one variety or of similar varieties; are fairly well-matured; are fairly uniform in size, except for Style I (a), whole, loose, figs and Style II, sliced figs; possess a fairly uniform typical color; possess a typical and normal dried fig flavor and odor; are free from foreign material; and do not exceed the maximum allowances and limitations as specified in Table No. I (Moisture), Table No. VI (Defects: Styles I (a), I (b), and I (c), whole figs), or Table No. VII (Defects: Style II, sliced figs) of this subpart.

(d) *(SStd) classification.* "U. S. Grade D" or "Substandard" is the quality of dried figs that fail to meet the requirements of "U. S. Grade C" or "U. S. Standard."

§ 52.1026 *Moisture allowances for grades (not for manufacturing) of dried figs.* (a) Dried figs shall not exceed the moisture limits for the grades, types, styles, and groups designated in Table No. I of this section. Moisture limits are not applicable to U. S. Grade D (not for manufacturing) or Substandard (not for manufacturing). Group I includes figs in containers which do not completely enclose and seal the figs; such containers include, but are not limited to, wood boxes or fiber boxes. Group II includes figs packaged in completely sealed packages; such containers include, but are not limited to, cellophane, pliofilm, metal-foil wrapped bags or cartons.

(b) In determining compliance with the moisture limits prescribed in Table No. I, samples which represent a specific lot of dried figs may possess one percent (1%) additional moisture, provided the average moisture for all samples is within the limits stated in Table No. I.

TABLE NO. I—MOISTURE ALLOWANCES FOR DRIED FIGS

Grades (not for manufacturing)	Types	Styles	Maximum moisture limits (by weight)	
			Group I	Group II
			Percent	*Percent*
U. S. Grade A or U. S. Fancy and U. S. Grade B or U. S. Choice and U. S. Grade C or U. S. Standard.	White	Whole	24	30
	do	Sliced	23	----------
	Black	Whole	23	30
	do	Sliced	23	----------
	Black and white (mixed)	Whole	23	30
	do	Sliced	23	----------

§ 52.1027 *Grades of dried figs for manufacturing*—(a) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" is the quality of dried figs that are of one variety or similar varieties; are reasonably well-matured with not more than 5 percent by count of fairly well-matured figs; possess a reasonably uniform typical color, possess a good, distinct, typical, and normal dried fig flavor and odor; are free from foreign material; and do not exceed the maximum allowances and limitations as specified in Table No. VIII (Moisture); Table No. IX (Defects: Styles I (a), I (b), and I (c), whole figs); or Table No. X (Defects: Style II, sliced figs) of this subpart.

(b) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" is the quality of dried figs that are of one variety or mixed varietal types; are fairly well-matured; may possess a variable color; possess a reasonably good, distinct, typical and normal dried fig flavor and odor; are free from foreign material; and do not exceed the maximum allowances and limitations as specified in Table No. VIII (Moisture); Table No. XI (Defects): Styles I (a), I (b), and I (c), whole figs); or Table No. XII, (Defects: Style II, sliced figs) of this subpart.

(c) *(SStd) classification.* "U. S. Grade D for Manufacturing" or "Substandard for Manufacturing" is the quality of dried figs that fail to meet the requirements of "U. S. Grade B for Manufacturing" or U. S. Choice for Manufacturing."

§ 52.1028 *Moisture allowances for grades for manufacturing of dried figs.*

(a) Dried figs shall not exceed the moisture limits for the grades, types, styles, and groups designated in Table No. VIII of this subpart. Moisture limits are not applicable to U. S. Grade D for Manufacturing or Substandard for Manufacturing. Group I includes figs in containers which do not completely enclose and seal the figs; such containers include, but are not limited to, wood boxes or fiber boxes. Group II includes figs packaged in completely sealed packages; such containers include, but are not limited to, cellophane, pliofilm, metal-foil wrapped bags or cartons.

(b) In determining compliance with the moisture limits prescribed in Table No. VIII, samples which represent a specific lot of dried figs may possess one percent (1%) additional moisture, provided the average moisture for all samples is within the limits stated in Table No. VIII.

DEFINITIONS AND EXPLANATIONS

§ 52.1029 *Definitions of varying degrees of maturity.* (a) A "well-matured" dried fig means a dried fig which is well developed and in which the interior shows very good sugary tissue development that is sirupy and gumlike in consistency and texture.

(b) A "reasonably well-matured" dried fig means a dried fig which is reasonably well developed and in which (1) the interior shows good sugary tissue development that is gummy but slightly fibrous in consistency and texture or (2) one-third or less of the interior of the fig may be entirely lacking in sugary tissue, provided that the remainder of the interior of the fig is sirupy and gumlike in consistency and texture.

(c) A "fairly well-matured" dried fig means a dried fig which is fairly well developed and in which (1) the sugary tissue in the interior of the fig is gummy and fibrous in consistency and texture or (2) one-third or less of the interior of the fig may be entirely lacking in sugary tissue, provided that the remainder of the interior of the fig is gummy but slightly fibrous in consistency and texture or (3) more than one-third but less than one-half of the interior of the fig may be entirely lacking in sugary tissue, provided that the remainder of the interior of the fig is sirupy and gumlike in consistency and texture.

TABLE NO. II—ALLOWANCES FOR DEFECTS

[Style I (a), whole, loose, figs; style I (b), whole, pulled, figs; style I (c), whole, layered, figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 10% [1]	Limited allowances		
		Not more than 3/5 of the total or 6% [1]	Not more than 1/10 of the total or 1% [1]	Not more than 1/10 of the total or 1% [1]
U. S. Grade A or U. S. Fancy	Damaged by: Scars or disease. Sunburn. Insect injury. Mechanical injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count;

TABLE NO. III—ALLOWANCES FOR DEFECTS

[Style II, sliced figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 10% [1]	Limited allowances		
		Not more than 3/5 of the total or 6% [1]	Not more than 1/10 of the total or 1% [1]	Not more than 1/10 of the total or 1% [1]
U. S. Grade A or U. S. Fancy	Damaged by: Scars or disease. Sunburn. Insect injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. IV—ALLOWANCES FOR DEFECTS

[Style I (a), whole, loose, figs.; style I (b), whole, pulled, figs.; style I (c), whole, layered, figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 15% [1]	Limited allowances		
		Not more than 8/15 of the total or 8% [1]	Not more than 1/15 of the total or 1% [1]	Not more than 2/15 of the total or 2% [1]
U. S. Grade B or U. S. Choice	Damaged by: Scars or disease. Sunburn. Insect injury. Mechanical injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. V—ALLOWANCES FOR DEFECTS

[Style II, sliced figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 15% [1]	Limited allowances		
		Not more than 8/15 of the total or 8% [1]	Not more than 1/15 of the total or 1% [1]	Not more than 2/15 of the total or 2% [1]
U. S. Grade B or U. S. Choice	Damaged by: Scars or disease. Sunburn. Insect injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. VI—ALLOWANCES FOR DEFECTS

[Style I (a), whole, loose, figs; style I (b), whole, pulled, figs; style I (c), whole, layered, figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 20% [1]	Limited allowances		
		Not more than 1/2 of the total or 10% [1]	Not more than 1/10 of the total or 2% [1]	Not more than 3/20 of the total or 3% [1]
U. S. Grade C or U. S. Standard	Seriously damaged by: Scars or disease. Damaged by: Scars or disease. Sunburn. Insect injury. Mechanical injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. VII—ALLOWANCES FOR DEFECTS

[Style II, sliced figs]

Grade (not for manufacturing)	Total allowance, not more than a total of 20% [1]	Limited allowances		
		Not more than 1/2 of the total or 10% [1]	Not more than 1/10 of the total or 2% [1]	Not more than 3/20 of the total or 3% [1]
U. S. Grade C or U. S. Standard	Damaged by: Scars or disease. Sunburn. Insect injury. Visible sugaring. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. VIII—MOISTURE ALLOWANCES FOR DRIED FIGS

Grades for manufacturing	Types	Styles	Maximum moisture limits (by weight)	
			Group I	Group II
			Percent	*Percent*
U. S. Grade A or U. S. Fancy and U. S. Grade B or U. S. Choice.	White	Whole	24	30
	do	Sliced	23	----------
	Black	Whole	23	30
	do	Sliced	23	----------
	Black and white (mixed)	Whole	23	30
	do	Sliced	23	----------

(d) An "immature" fig is considered a defect (see § 52.1032 (h)).

(e) A "worthless" fig is considered a defect (see § 52.1032 (l)).

§ 52.1030 *Definitions of varying degrees of uniformity of size.* Uniformity of size applies to Style I (b), whole, pulled, figs and Style I (c), whole, layered, figs, where the original shape has been materially changed.

(a) "Practically uniform in size" means that not more than a total of 10 percent by count of dried figs may be conspicuously larger or smaller than the approximate average size of the dried figs in the container.

(b) "Reasonably uniform in size" means that not more than a total of 15 percent by count of dried figs may be conspicuously larger or smaller than the approximate average size of the dried figs in the container.

(c) "Fairly uniform in size" means that not more than a total of 20 percent by count of dried figs may be conspicuously larger or smaller than the approximate average size of the dried figs in the container.

§ 52.1031 *Definitions of varying degrees of uniformity of color.* (a) "Practically uniform typical color" means, with respect to white varieties of dried figs that are light in color, that there may be not more than 5 percent by count of dried figs that are markedly dark figs; and, with respect to white varieties that are dark in color, that there may be not more than 5 percent by count of dried figs that are markedly light-colored figs.

(b) "Practically uniform typical color" means, with respect to black varieties of dried figs, that the color of the dried figs is a practically uniform natural black color and that dried figs affected by very light-colored scars which are not calloused and which, singly or in the aggregate on a whole dried fig, are less than one-half of the exterior surface of the dried fig do not exceed 10 percent by count of the dried figs.

(c) "Reasonably uniform typical color" means, with respect to white varieties of dried figs that are light in color, that there may be not more than 10 percent by count of dried figs that are markedly dark figs; and, with respect to white varieties that are dark in color, that there may be not more than 10 percent by count of dried figs that are markedly light-colored figs.

(d) "Reasonably uniform typical color" means, with respect to black varieties of dried figs, that the color of the dried figs is a reasonably uniform natural black color and that dried figs affected by very light-colored scars which are not calloused and which, singly or in the aggregate on a whole dried fig, are less than one-half of the exterior surface of the dried fig do not exceed 15 percent by count of the dried figs.

(e) "Fairly uniform typical color" means, with respect to white varieties of dried figs that are light in color or are very light green in color, that there may be not more than 20 percent by count of dried figs that are markedly dark figs; and, with respect to white varieties that are dark in color, that there may be not more than 20 percent by count of dried figs that are markedly light-colored figs.

(f) "Fairly uniform typical color" means, with respect to black varieties of dried figs, that the color of the dried figs is a fairly uniform natural black color and that dried figs affected by very light-colored scars which are not calloused and which, singly or in the aggregate on a whole dried fig, are less than one-half of the exterior surface of the dried fig do not exceed 20 percent by count of the dried figs.

TABLE NO. IX—ALLOWANCES FOR DEFECTS

[Style I (a), whole, loose, figs; style I (b), whole, pulled, figs; style I (c), whole, layered, figs]

Grade for manufacturing	Total allowance, not more than a total of 15% [1]	Limited allowances		
		Not more than 8/15 of the total or 8% [1]	Not more than 1/15 of the total or 1% [1]	Not more than 1/15 of the total or 1% [1]
U. S. Grade A or U. S. Fancy	Seriously damaged by: Scars or disease. Damaged by: Scars or disease. Sunburn. Insect injury. Mechanical injury. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. X—ALLOWANCES FOR DEFECTS

[Style II, sliced figs]

Grade for manufacturing	Total allowance, not more than a total of 10% [1]	Limited allowances		
		Not more than 4/5 of the total or 8% [1]	Not more than 1/10 of the total or 1% [1]	Not more than 1/5 of the total or 2% [1]
U. S. Grade A or U. S. Fancy	Damaged by: Scars or disease. Sunburn. Insect injury. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. XI—ALLOWANCES FOR DEFECTS

[Style I (a), whole, loose, figs; style I (b), whole, pulled, figs; style I (c), whole, layered, figs]

Grade for manufacturing	Total allowance, not more than a total of 30% [1]	Limited allowances		
		Not more than 1/3 of the total or 10% [1]	Not more than 1/15 of the total or 2% [1]	Not more than 1/10 of the total or 3% [1]
U. S. Grade B or U. S. Choice	Seriously damaged by: Scars or disease. Damaged by: Sunburn. Insect injury. Mechanical injury. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

TABLE NO. XII—ALLOWANCES FOR DEFECTS

[Style II, sliced figs]

Grade for manufacturing	Total allowance, not more than a total of 20% [1]	Limited allowances		
		Not more than ½ of the total or 10% [1]	Not more than 1/10 of the total or 2% [1]	Not more than ¼ of the total or 5% [1]
U. S. Grade B or U. S. Choice	Damaged by: Scars or disease. Sunburn. Insect injury. Other similar defects. Immature figs. Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by: Souring. Mold. Dirt. Affected by decay. Worthless figs.	Affected by decay.	Worthless figs.

[1] Percentages are by count.

§ 52.1032 *Definitions of defects.* (a) "Damaged by scars or disease" means that the area of tough or calloused scars, singly or in the aggregate on a dried fig or portion of dried fig, is equal to, or exceeds, the area of a circle ⅜ inch in diameter but is less than the area of a circle ½ inch in diameter.

(b) "Seriously damaged by scars or disease" means that the area of tough or calloused scars, singly or in the aggregate on a dried fig or portion of dried fig, is equal to, or exceeds, the area of a circle ½ inch in diameter. Figs which possess very light-colored scars that are not calloused are considered as "seriously damaged by scars" if such scars, singly or in the aggregate on a whole dried fig, are equal to one-half or more of the exterior surface of the dried fig.

(c) "Damaged by sunburn" means any substantial damage from excessive heat to the skin evidenced by dry and tough surface areas and which damage is accompanied by a lack of sugary tissue affecting one-third or more of the interior of a dried fig.

(d) "Damaged by insect injury" means healed or unhealed surface blemishes or unhealed blemishes in the flesh which affect materially the appearance, edibility, or keeping quality of the dried figs.

(e) "Mechanical injury" means injury to the styles of whole dried figs as follows: (1) In Style I (a), Whole, loose, figs and Style I (b), Whole, pulled, figs, the seed tissue is mashed out beyond the outer wall or there are excessive skin breaks which affect materially the appearance of the dried figs for the applicable style; (2) in Style I (c), Whole, layered, figs, there are excessive skin breaks (other than the normal splitting for the style) to the extent that a dried fig cannot be identified as a whole, layered, fig.

(f) "Damaged by visible sugaring" means white sugar crystals which form on the exterior surface of a dried fig so as to damage materially the appearance. Units showing a few lightly sugared spots are not considered as "damaged by visible sugaring."

(g) "Damaged by other similar defects" includes any injury or defect not specifically mentioned which affects materially the appearance, edibility, or keeping quality of the dried figs, except that stems which attach the fig to the twig of the tree are not considered as "other similar defects."

(h) An "immature" fig means a fig which does not meet the requirements of "fairly well-matured" (see § 52.1029 (c)) but is not worthless.

(i) "Affected by souring" means that a dried fig is (1) fermented, as evidenced by a distinct sour taste or odor or by the darkening in color characteristic of fermentation or souring; or (2) infested with internal rot (endosepsis).

(j) "Affected by mold" means that a dried fig shows a moldy or smutty condition, singly or in the aggregate on a dried fig or portion of dried fig, that is equal to, or exceeds, the area of a circle 5/16 inch in diameter.

(k) "Affected by decay" means that the flesh is decomposed by rot.

(l) A "worthless" fig means a fig which is tough and fibrous and may contain a trace of sugary tissue.

§ 52.1033 *Definition of varying degrees of flavor and odor.* (a) "Good, distinct, typical, and normal dried fig flavor and odor" means a clean and distinct dried fig flavor and odor free from any flavors or odors such as are characteristic of scorching or caramelization and free from other slight abnormal flavors or odors.

(b) "Reasonably good, distinct, typical, and normal dried fig flavor and odor" means a clean and distinct dried fig flavor and odor which may possess very slight flavors or odors such as are characteristic of scorching or caramelization or may possess other very slight abnormal flavors or odors.

(c) "Typical and normal dried fig flavor and odor" means a clean and distinct dried fig flavor and odor which may possess slight flavors or odors such as are characteristic of scorching or caramelization but may not possess any flavor in amounts resulting in objectionable or off-flavors.

WORK SHEETS

§ 52.1034 *Work sheet for grades (not for manufacturing) of dried figs.*

Size and kind of container---------- ------
Container mark or identification-- ------
Label or brand-------------------- ------
Net weight------------------------ ------
Type (color)---------------------- ------
Style (type of pack)-------------- ------
Size or sizes (Whole, loose, figs)------ ------
Moisture content------------------ ------
Varietal characteristics:
Similar ---- Mixed-------------- ------
Uniformity of color:
White: Marked variation from
Light ---- Dark -------------- ----%
Black: -------- Natural Black ---- ----%
Very light scars (uncalloused
etc.) ------------------------ ----%
Uniformity of size: (Whole, pulled and
layered) Conspicuously larger ----;
smaller ------------------------- ----%
Maturity and development:
(A Well-matured --------------- ----%
(B) Reasonably well-matured----- ----%
(C) Fairly well-matured---------- ----%
Flavor and odor: (A), (B), (C)----- ------

Count (per sample):
Worthless figs-------------------- ----%
Affected by decay----------------- ----%
Affected by souring, mold--------- ----%
Dirt ----------------------------- ----%
Subtotal above defects---------- ----%
Seriously damaged by scars or
disease [1] ------------------------- ----%
Damaged by scars or disease------- ----%
Mechanical injury [2]---------------- ----%
Damaged by sunburn, insect injury, visible sugaring, other similar defects, and immature figs--- ----%
Grand total all defects------- ----%
U. S. Grade (including all factors)-- ------

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[1] "Seriously damaged by scars or disease" applies to U. S. Grade C (not for manufacturing) or U. S. Standard (not for manufacturing) in Style I (a), Whole, loose, figs; Style I (b), Whole, pulled, figs; and Style I (c), Whole, layered, figs.

[2] "Damaged by mechanical injury" is not applicable to any grade of Style II, sliced figs.

§ 52.1035 *Work sheet for grades for manufacturing of dried figs.*

Size and kind of container---------- ------
Container mark or identification---- ------
Label or brand-------------------- ------
Net weight------------------------ ------
Type (color)---------------------- ------
Style (type of pack)-------------- ------
Size or sizes (whole, loose, figs)---- ------
Moisture content------------------ ------
Varietal characteristics:
Similar ---- Mixed -------------- ------
Uniformity of color:
White: Marked variation from
Light ---- Dark -------------- ----%
Black: -------- Natural black ----- ------
Very light scars (uncalloused,
etc.) ------------------------ ----%
Maturity and development:
(A) For Manufacturing — reasonably well-matured-------------- ----%
(B) For Manufacturing — fairly well-matured ----------------- ----%
Flavor and odor: (A), (B)---------- ------

Count (per sample):
  Worthless figs ---- %
  Affected by decay ---- %
  Affected by souring, mold ---- %
  Dirt ---- %
    Subtotal above defects ---- %
  Seriously damaged by scars or disease[1] ---- %
  Damaged by scars or disease[2] ---- %
  Mechanical injury[3] ---- %
  Damaged by sunburn, insect injury, other similar defects, and immature figs ---- %
      Grand total all defects ---- %
U. S. Grade for manufacturing (including all factors) ------

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[1] "Seriously damaged by scars or disease" applies to U. S. Grade A for Manufacturing or U. S. Fancy for Manufacturing and U. S. Grade B for Manufacturing or U. S. Choice for Manufacturing in Style I (a), Whole, loose, figs; Style I (b), Whole, pulled, figs; and Style I (c), Whole, layered, figs.

[2] No limit for "damaged by scars or disease" in U. S. Grade B for Manufacturing or U. S. Choice for Manufacturing in Style I (a), Whole, loose, figs; Style I (b), Whole, pulled, figs; and Style I (c), Whole, layered, figs.

[3] "Damaged by mechanical injury" is not applicable to any grade of Style II, sliced figs.

UNITED STATES STANDARDS FOR GRADES OF CANNED FRUIT COCKTAIL[1]

IDENTITY AND GRADES

§ 52.1051 *Identity.* "Canned fruit cocktail" means the food prepared from the mixture of fruit ingredients of peaches, pears, grapes, pineapple, and cherries as defined in the standard of identity for canned fruit cocktail, canned cocktail fruits, canned fruits for cocktail (21 CFR 27.40) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.1052 *Grades of canned fruit cocktail.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned fruit cocktail that is practically free from defects; that possesses a good character; that possesses a normal flavor and odor; and that is of such quality with respect to clearness of liquid media, color, and uniformity of size as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned fruit cocktail that possesses a fairly clear liquid media; that is reasonably uniform in size; that is reasonably free from defects; that possesses a reasonably good character; that possesses a normal flavor and odor; and that is of such quality with respect to color as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of canned fruit cocktail that fails to meet the requirements of U. S. Grade B or U. S. Choice and is the quality of canned fruit cocktail that may or may not meet the minimum standard of quality for canned fruit cocktail issued pursuant to the Federal Food, Drug, and Cosmetic Act.

PROPORTIONS

§ 52.1053 *Proportion of fruit ingredients.* Canned fruit cocktail shall contain the fruit ingredients in the proportions indicated in Table I.

TABLE I

Fruit ingredient	Style	Proportions	
		Not less than—	Not more than—
Peaches (any yellow variety)	Diced	30 percent by weight of drained fruit.	50 percent by weight of drained fruit.
Pears (any variety)	Diced	25 percent by weight of drained fruit.	45 percent by weight of drained fruit.
Grapes (any seedless variety)	Whole	6 percent by weight of drained fruit.	20 percent by weight of drained fruit.
Pineapple (any variety)	Diced or sectors	6 percent by weight of drained fruit; but not less than 2 sectors or 3 dice for each 4½ ounces avoirdupois of product and each fraction thereof greater than 2 ounces.	16 percent by weight of drained fruit.
Cherries (any light, sweet variety) or (artificially colored red) or (artificially colored red and artifically flavored).	Approximate halves	2 percent by weight of drained fruit; but not less than 1 approximate half for each 4½ ounces avoirdupois of product and each fraction thereof greater than 2 ounces.	6 percent by weight of drained fruit.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.1054 *Liquid media and Brix measurements for canned fruit cocktail.* "Cut-out" requirements for liquid media in canned fruit cocktail are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. The "cut-out" Brix measurement, as applicable, for the respective designations are as follows:

Designations	*Brix measurement*
"Extra heavy sirup" or "Extra heavy fruit juice sirup"	22° or more but not more than 35°.
"Heavy sirup" or "Heavy fruit juice sirup"	18° or more but less than 22°.
"Light sirup" or "Light fruit juice sirup"	14° or more but less than 18°.
"In water"	Packed in water.
"In fruit juice"	Packed in fruit juice.

§ 52.1055 *Fill of container for canned fruit cocktail.* (a) The standard of fill of container for canned fruit cocktail is a fill such that the total weight of drained fruit is not less than 65 percent of the water capacity of the container. Canned fruit cocktail that does not meet this requirement is "Below Standard in Fill."

(b) Such total weight of drained fruit is determined by the following method: Tilt the open container so as to distribute the contents evenly over the meshes of a circular sieve which has been previously weighed. The diameter of the sieve is 8 inches if the quantity of the contents of the container is less than 3 pounds, and 12 inches if such quantity is 3 pounds or more. The bottom of the sieve is woven-wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve so incline the sieve as to facilitate the drainage. Two minutes from the time drainage begins, weigh the sieve and drained fruit. The weight so found, less the weight of the sieve, shall be considered to be the total weight of drained fruit.

(c) The total weight of drained fruit, also termed "drained weight," shall be not less than that shown for the respective size of containers in Table II.

TABLE II

[Minimum drained weight for canned fruit cocktail]

Container designation (metal, unless otherwise stated)	Container size			Capacity—weight H_2O at 68° F.	Minimum drained weight (65 percent capacity)
	Overall width	Dimensions, height	Overflow capacity		
	Inches	*Inches*	*Fluid ounces*	*Avdp. ounces*	*Ounces*
8 Z tall	2 11/16	3 4/16	------	8.65	5.63
8-oz. glass	------	------	8.2	8.50	5.53
No. 300	3	4 7/16	------	15.20	9.88
No. 1 tall	3 1/16	4 11/16	------	16.60	10.79
No. 303	3 3/16	4 9/16	------	16.85	10.96
303 glass	------	------	17.0	17.70	11.51
No. 2	3 7/16	4 9/16	------	20.50	13.33
No. 2½	4 1/16	4 11/16	------	29.75	19.34
No. 2½ glass	------	------	28.35	29.50	19.18
No. 10	6 3/16	7	------	109.45	71.15

FACTORS OF QUALITY

§ 52.1056 *Ascertaining the grade.* (a) The grade of canned fruit cocktail is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of clearness of liquid media, color, uniformity of size, absence of defects, and character.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Clearness of liquid media	20
Color	20
Uniformity of size	20
Absence of defects	20
Character	20
Total score	100

(c) "Normal flavor and odor" means that the canned fruit cocktail is free from objectionable flavors and objectionable odors of any kind.

§ 52.1057 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1058 *Clearness of liquid media*—(a) (*A*) *classification.* Canned fruit cocktail that possesses a reasonably clear liquid media may be given a score of 17 to 20 points. "Reasonably clear liquid media" means that the liquid drained from the fruit cocktail is reasonably bright in color without any tinge of pink color or dullness of color and may contain fine fruit particles which do not materially affect the appearance of the product.

(b) (*B*) *classification.* If the canned fruit cocktail possesses a fairly clear liquid media, a score of 14 to 16 points may be given. "Fairly clear liquid media" means that the liquid drained from the fruit cocktail may be slightly pink or slightly dull in color but is not off color for any reason and may contain fruit particles which materially affect, but do not seriously affect, the appearance of the product.

(c) (*SStd*) *classification.* Canned fruit cocktail that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1059 *Color*—(a) *General.* The factor of color refers to the general brightness and uniformity of color typical of each of the fruit ingredients; the degree of freedom from staining from artificially colored cherries, if present; and the dullness or off color in any single fruit ingredient.

(b) (*A*) *classification.* Canned fruit cocktail that possesses a good color may be given a score of 17 to 20 points. "Good color" means that each fruit ingredient possesses a practically uniform typical color that is bright and characteristic of at least reasonably well-matured fruit that has been properly prepared and processed; that any of the fruit ingredients may be no more than slightly affected by pink staining; and that none of the fruit ingredients are dull or off color for reasons other than being slightly affected by pink staining.

(c) (*B*) *classification.* If the canned fruit cocktail possesses a reasonably good color, a score of 14 to 16 points may be given. Canned fruit cocktail that falls into this classification because of staining or dullness of color shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a partial limiting rule). "Reasonably good color" means that each fruit ingredient possesses a reasonably uniform typical color that is reasonably bright and characteristic of at least fairly well-matured fruit that has been properly prepared and processed; and that any of the fruit ingredients may be more than slightly affected by pink staining but not to the extent that the appearance is materially affected by this cause or may be slightly dull in color but none of the fruit ingredients are off color for reasons other than staining or dullness within these limits.

(d) (*SStd*) *classification.* Canned fruit cocktail that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1060 *Uniformity of size*—(a) *General.* The factor of uniformity of size refers to the uniformity of size of intact halves of cherries and whole grapes and to the degree of deviation from the dimensions for diced units of peaches, pears, and pineapple or for sectors of pineapple, which dimensions approximate the following:

(1) Diced units are not more than ¾ inch in greatest edge dimension and will not pass through the meshes of a sieve designated as $\frac{5}{16}$ inch in Table I of "Standard Specifications for Sieves" published March 1, 1940, in L. C. 584 of the National Bureau of Standards, U. S. Department of Commerce;

(2) Sectors of pineapple: The length of the outside arc is not more than ¾ inch but is more than ⅜ inch; the thickness is not more than ½ inch but is more than $\frac{5}{16}$ inch; the length (measured along the radius from the inside arc to outside arc) is not more than 1¼ inch but is more than ¾ inch.

(b) (*A*) *classification.* Canned fruit cocktail in which each of the fruit ingredients are practically uniform in size may be given a score of 17 to 20 points. "Practically uniform in size" means that not more than 10 percent by weight of the peach units, of the pear units, or of the pineapple units if diced may fail to conform to the dimensions for diced units; that not more than 10 percent by weight of the pineapple units if in sectors may fail to conform to the dimensions for sectors of pineapple; that the largest whole grape does not weigh more than three times the weight of the smallest whole grape; and that the longest dimension on the cut surface of the largest intact cherry half does not exceed the longest dimension on the cut surface of the smallest intact cherry half by more than 33⅓ percent.

(c) (*B*) *classification.* If the canned fruit cocktail possesses fruit ingredients that are reasonably uniform in size, a score of 14 to 16 points may be given. Canned fruit cocktail in which more than 15 percent by weight of the peach units, of the pear units, or of the pineapple units if diced fail to conform to the dimensions for diced units and in which more than 15 percent by weight of the pineapple units if in sectors fail to conform to the dimensions for sectors of pineapple shall not be graded above U. S. Grade B (or U. S. Choice), regardless of the total score for the product (this is a partial limiting rule). "Reasonably uniform in size" means that not more than 20 percent by weight of the peach units, of the pear units, or of the pineapple units if diced may fail to conform to the dimensions for diced units; that not more than 20 percent by weight of the pineapple units if in sectors may fail to conform to the dimensions for sectors of pineapple; that the largest whole grape does not weigh more than four times the weight of the smallest whole grape; and that the longest dimension on the cut surface of the largest intact cherry half does not exceed the longest dimension on the cut surface of the smallest intact cherry half by more than 50 percent.

(d) (*SStd*) *classification.* Canned fruit cocktail which fails to meet the requirements of paragraph (c) of this section shall be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule); and if the canned fruit cocktail fails to meet the requirements of paragraph (c) of this section only because of the deviations from the dimensions of diced units of peaches, pears, or pineapple or of sectors of pineapple, the canned fruit cocktail is also:

Below Standard in Quality
Good Food—Not High Grade

§ 52.1061 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material; from peach and pear peel; from pits or portions thereof; from capstems; from crushed or broken grapes; from broken cherry halves; from unevenly colored cherry halves; from blemished units; and from any other defects which detract from the appearance or edibility of the product.

(1) "Harmless extraneous material" means any vegetable substance not specifically mentioned herein as a defect that is harmless.

(2) A "pit or portion thereof" means any whole pit or piece of pit material, regardless of size.

(3) A "capstem" means a small woody stem which attaches a grape to the branch of a bunch of grapes. Capstems are considered as defects whether or not attached to a grape.

(4) A "crushed or broken grape" means a grape that is severely crushed so as to destroy its shape or that is severed into two separate parts. Portions or fragments of grapes that are the equivalent of one grape are considered as a grape in ascertaining compliance with percentages by count of grapes.

(5) A "broken cherry half" means any portion of a cherry that is definitely less than an apparent half or a definitely mutilated cherry half.

(6) An "unevenly colored cherry half" means, if the cherry halves are artificially colored, that the color in the cherry half is other than evenly distributed in the unit or other than uniform with the color of the other cherry halves.

(7) "Blemished" in the case of the peach, pear, grape, or cherry ingredients means blemished with scab, hail injury, scar tissue, objectionable pear seed cell material, objectionable portions of interior pear stems, or other abnormality which materially affects the appearance of the unit; and in the case of the pineapple ingredient means any blemish or combination of blemishes on a unit which materially affects the appearance or edibility of the unit and includes, but is not limited to, any fruit eye or portion thereof which on the exposed portion exceeds the area of a circle $\frac{1}{16}$ inch in diameter, brown spots, pieces of shell, bruised portions, or other similar blemishes.

(b) *(A) classification.* Canned fruit cocktail that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that the product is practically free from harmless extraneous material, from pits or portions thereof, from the presence of peel from loose capstems, and from any other defects not specifically mentioned that more than slightly affect the appearance or edibility of the product; and that, in addition, not more than the following defective units, as applicable for the ingredient, may be present:

(1) *Peach.* 5 percent by weight of the peach units may be blemished;

(2) *Pear.* 5 percent by weight of the pear units may be blemished;

(3) *Pineapple.* 5 percent by count of the pineapple units may be blemished;

(4) *Grape.* 10 percent by count of the grapes in a container containing 10 grapes or more, and 1 grape in a container containing less than 10 grapes may be blemished; 5 percent by count of the grapes in a container containing 20 grapes or more, and 1 grape in a container containing less than 20 grapes may be crushed or broken; and 10 percent by count of the grapes in a container containing 10 grapes or more, and 1 grape in a container containing less than 10 grapes may have the capstem attached.

(5) *Cherry.* 5 percent by count of the cherry halves in a container containing 20 cherry halves or more, and 1 cherry half in a container containing less than 20 cherry halves may be blemished; 5 percent by count of the cherry halves in a container containing 20 cherry halves or more, and 1 cherry half in a container containing less than 20 cherry halves may be a broken cherry half; and 5 percent by count of the cherry halves in a container containing 20 cherry halves or more, and 1 cherry half in a container containing less than 20 cherry halves may be unevenly colored: *Provided,* That in all containers comprising the sample such blemished cherry halves do not exceed an average of 5 percent by count of the total number of cherry halves; such broken cherry halves do not exceed an average of 5 percent by count of the total number of cherry halves; and such unevenly colored cherry halves do not exceed an average of 5 percent by count of the total number of cherry halves.

(c) *(B) classification.* If the canned fruit cocktail is reasonably free from defects, a score of 14 to 16 points may be given. Canned fruit cocktail that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the product is practically free from harmless extraneous material and from pits or portions thereof; that the product is reasonably free from loose capstems and from any other defects not specifically mentioned that materially affect the appearance or edibility of the product; that not more than ¼ square inch of peach peel or of pear peel for each pound of net contents may be present; and that, in addition, not more than the following defective units, as applicable for the ingredient, may be present:

(1) *Peach.* 10 percent by weight of the peach units may be blemished;

(2) *Pear.* 10 percent by weight of the pear units may be blemished;

(3) *Pineapple.* 12½ percent by count of the pineapple units may be blemished;

(4) *Grape.* 20 percent by count of the grapes may be blemished; 10 percent by count of the grapes in a container containing 10 grapes or more, and 1 grape in a container containing less than 10 grapes may be crushed or broken; and 10 percent by count of the grapes in a container containing 10 grapes or more, and 1 grape in a container containing less than 10 grapes may have the capstem attached.

(5) *Cherry.* 15 percent by count of the cherry halves may be blemished; 15 percent by count of the cherry halves in a container containing more than 6 cherry halves, and 1 cherry half in a container containing 6 cherry halves or less may be a broken cherry half; and 15 percent by count of the cherry halves in a container containing more than 6 cherry halves, and 1 cherry half in a container containing 6 cherry halves or less may be unevenly colored.

(d) *(SStd) classification.* Canned fruit cocktail that fails to meet any of the requirements of paragraph (c) of this section shall be given a score of 0 to 13 points; shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule); and may or may not be:

Below Standard in Quality
Good Food—Not High Grade

§ 52.1062 *Character*—(a) *General.* The factor of character refers to the texture and tenderness for the fruit ingredients as prepared and processed for canned fruit cocktail.

(b) *(A) classification.* Canned fruit cocktail that possesses a good character may be given a score of 17 to 20 points. "Good character" means that each fruit ingredient is reasonably uniform in texture and tenderness with no more than slight disintegration and that the individual fruit ingredients meet the following requirements:

(1) *Peach.* The texture is typical of diced peaches prepared and processed from at least reasonably well-matured fruit and the units may range in tenderness from slightly firm to slightly soft but possess fairly well-defined edges.

(2) *Pear.* The texture is typical of diced pears prepared and processed from properly ripened pears or from pears of moderate graininess and the units may range in tenderness from slightly firm to slightly soft and may have slightly rounded edges.

(3) *Pineapple.* The units are practically uniform in ripeness with fruitlets of compact structure, are reasonably free from porosity, and are practically free from hard core material.

(4) *Grape.* The units are reasonably plump and reasonably firm.

(5) *Cherry.* The units are reasonably firm.

(c) *(B) classification.* If the canned fruit cocktail possesses a reasonably good character, a score of 14 to 16 points may be given. Canned fruit cocktail that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that each fruit ingredient may range from a firm to soft texture without serious disintegration and that the individual fruit ingredients meet the following requirements:

(1) *Peach.* The texture is typical of diced peaches prepared and processed from at least fairly well-matured fruit and the units may range in tenderness from firm to soft and may possess frayed edges.

(2) *Pear.* The texture is typical of diced pears prepared and processed from properly ripened pears or from pears of marked graininess and the units may be lacking in uniformity of tenderness ranging from markedly firm to soft with rounded edges.

(3) *Pineapple.* The units are reasonably uniform in ripeness with fruitlets of reasonably compact structure, are fairly free from porosity, and are reasonably free from hard core material.

(4) *Grape.* The units may be variable in texture from firm to soft but not mushy or excessively flabby.

(5) *Cherry.* The units may be fairly firm to soft but not excessively flabby.

(d) *(SStd) classification.* If the canned fruit cocktail fails to meet the requirements of paragraph (c) of this section, a score of 0 to 13 points may be given. Canned fruit cocktail that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1063 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned fruit cocktail the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score

for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1064 *Score sheet for canned fruit cocktail.*

Size and kind of container	----
Container mark or identification	----
Label	----
Net weight (ounces)	----
Vacuum (inches)	----
Drained weight (ounces):	
( ) Meets fill of container	----
( ) Fails fill of container	----
Brix measurement	----
Sirup designation (extra heavy, heavy, etc.)	----
Proportions of fruit ingredients:	
Peach: -- ozs. --- % ( ) Meets ( ) Fails	----
Pear: -- ozs. --- % ( ) Meets ( ) Fails	----
Pineapple: -- ozs. --- % ( ) Meets ( ) Fails	----
Grape: -- ozs. --- % ( ) Meets ( ) Fails	----
Cherry: -- ozs. --- % ( ) Meets ( ) Fails	----
Total ---- ozs. 100 %	
Count:	
Pineapple ( ) Sectors ( ) Diced	----
Cherry halves	----

Factors	Score points		
I. Clearness of liquid media	20	(A)	17-20
		(B)	14-16
		(SStd)	[1] 0-13
II. Color	20	(A)	17-20
		(B)	[1] 14-16
		(SStd)	[1] 0-13
III. Uniformity of size	20	(A)	17-20
		(B)	[2] 14-16
		(SStd)	[1] 0-13
IV. Absence of defects	20	(A)	17-20
		(B)	[1] 14-16
		(SStd)	[1] 0-13
V. Character	20	(A)	17-20
		(B)	[1] 14-16
		(SStd)	[1] 0-13
Total score	100		

Normal flavor and odor	----
Grade	----

[1] Indicates limiting rule.

[2] Indicates partial limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FRUIT JELLY[1]

IDENTITY, TYPES, KINDS, AND GRADES

§ 52.1081 *Identity.* "Fruit jelly" means fruit jelly as defined in the definitions and standards of identity for fruit jelly (21 CFR 29.5), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

(a) Compliance with the standard of identity to establish the ingredients or proportion of ingredients will be indicated on Federal inspection certificates only when these conditions are ascertained during the process of manufacture.

(b) The soluble solids for fruit jelly are not less than 65 percent.

§ 52.1082 *Types of fruit jelly*—(a) *Type I.* Prepared from a single variety of fruit juice ingredient.

(b) *Type II.* Prepared from a mixture of two or more varieties of fruit juice ingredients.

§ 52.1083 *Kinds of fruit jelly.*

Apple.
Apricot.
Blackberry (other than dewberry).
Black raspberry.
Boysenberry.
Cherry.
Crabapple.
Cranberry.
Damson, damson plum.
Dewberry (other than boysenberry, loganberry, and youngberry).
Fig.
Gooseberry.
Grape.
Grapefruit.
Greengage, greengage plum.
Guava.
Loganberry.
Orange.
Peach.
Pineapple.
Plum (other than damson, greengage, and prune).
Pomegranate.
Quince.
Raspberry, red raspberry.
Red currant, currant (other than black currant).
Strawberry.
Youngberry.

§ 52.1084 *Grades of fruit jelly.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of fruit jelly that possesses a good consistency; possesses a bright typical color; is free from defects; possesses a distinct and normal flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of fruit jelly that possesses a reasonably good consistency; possesses a reaonably bright, typical color; is free from defects; possesses a reasonably good and normal flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of fruit jelly that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1085 *Recommended fill of container.* It is recommended that the container be filled with jelly as full as practicable without impairment of quality and that the product occupies not less than 90 percent of the capacity of the container.

FACTORS OF QUALITY

§ 52.1086 *Ascertaining the grade.* The grade of fruit jelly may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Consistency, color, and flavor. The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Consistency	40
Color	20
Flavor	40
Total score	100

§ 52.1087 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "34 to 40 points" means 34, 35, 36, 37, 38, 39, or 40 points).

§ 52.1088 *Consistency*—(a) *General.* The factor of consistency refers to the gel strength of the product.

(b) *(A) classification.* Fruit jelly that possesses a good consistency may be given a score of 34 to 40 points. "Good consistency" means that the fruit jelly possesses a tender to slightly firm texture and retains a compact shape without excessive syneresis ("weeping").

(c) *(B) classification.* If the fruit jelly possesses a reasonably good consistency, a score of 28 to 33 points may be given. Fruit jelly that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good consistency" means that the fruit jelly may lack firmness but it is not sirupy; and that it may be more than slightly firm but is not tough or rubbery.

(d) *(SStd) classification.* Fruit jelly that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1089 *Color*—(a) *(A) classification.* Fruit jelly that possesses a bright typical color may be given a score of 17 to 20 points. "Bright typical color" means that the color is characteristic of the fruit juice ingredient or ingredients and that the fruit jelly possesses a sparkling luster or may be not more than slightly cloudy, and is free from any dullness or color.

(b) *(B) classification.* If the fruit jelly possesses a reasonably bright typical color, a score of 14 to 16 points may be given. Fruit jelly that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably bright typical color" means that the color is characteristic of the fruit juice ingredient or ingredients and that the fruit jelly may be slightly cloudy and may possess a slight dullness of color.

(c) *(SStd) classification.* Fruit jelly that is definitely off color for any reason and fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1090 *Flavor*—(a) *(A) classification.* Fruit jelly that possesses a distinct and normal flavor may be given a score of 34 to 40 points. "Distinct and normal flavor" means that the product possesses a good distinct flavor characteristic of the fruit ingredient or fruit ingredients after preserving and is free from any caramelized flavor or any objectionable flavor of any kind.

(b) *(B) classification.* If the fruit jelly possesses a reasonably good and normal flavor, a score of 28 to 33 points may be given. Fruit jelly that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good and normal flavor" means that the product posesses a reasonably good flavor characteristic of the fruit or fruit ingredients after preserving and may possess a slight caramelized flavor but is free from any bitter flavor or other objectionable flavor or off flavor of any kind.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) *(SStd) classification.* Fruit jelly that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1091 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of fruit jelly, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1092 *Score sheet for fruit jelly.*

Size and kind of container			------
Container code or marking			------
Label			------
Net weight (in ounces)			------
Vacuum reading (in inches)			------
Type			------
Kind			------
Soluble solids			------
Factors	Score points		
Consistency	40	(A) 34-40 (B) [1]28-33 (D) [1]0-27	
Color	20	(A) 17-20 (B) [1]14-16 (D) [1]0-13	
Flavor	40	(A) 34-40 (B) [1]28-33 (D) [1]0-27	
Total score	100		
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FRUIT PRESERVES (OR JAMS) [1]

IDENTITY, TYPES, KINDS, AND GRADES

§ 52.1111 *Identity.* "Fruit preserves (or jams)" means preserves or jams as defined in the definitions and standards of identity for preserves, jams (21 CFR 29.3) issued pursuant to the Federal Food, Drug, and Cosmetic Act. The soluble solids for fruit preserves (or jams) in Group I are not less than 68 percent. The soluble solids for fruit preserves (or jams) in Group II are not less than 65 percent.

§ 52.1112 *Types of fruit preserves (or jams)*—(a) *Type I.* Fruit preserves (or jams) that are prepared from a single fruit (except apple) listed in Group I or Group II are "Type I."

(b) *Type II.* Fruit preserves (or jams) that are prepared from more than a single fruit listed in Group I and Group II are "Type II." [2]

§ 52.1113 *Kinds of fruit preserves (or jams) according to Group I or Group II designations.*

GROUP I

Any one singly or in combination with not more than four of the following: [1]

Blackberry (other than dewberry).
Black raspberry.
Blueberry.
Boysenberry.
Cherry.
Crabapple.
Dewberry (other than boysenberry, loganberry and youngberry).
Elderberry.
Grape.
Grapefruit.
Huckleberry.
Loganberry.
Orange.
Pineapple.
Raspberry, red raspberry.
Rhubarb.
Strawberry.
Tangerine.
Tomato.
Yellow tomato.
Youngberry.

GROUP II

Any one singly or in combination with not more than four of the following fruits and fruits in Group I: [2]

Apple (type II only).
Apricot.
Cranberry.
Damson, damson plum.
Fig.
Gooseberry.
Greengage, greengage plum.
Guava.
Nectarine.
Peach (clingstone and freestone).
Pear.
Plum (other than greengage plum and damson plum).
Quince.
Red currant, currant (other than black currant).

§ 52.1114 *Grades of fruit preserves (or jams).* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of fruit preserves (or jams) that possess a good consistency; that possess a good color; that are practically free from defects; that possess a good flavor; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of fruit preserves (or jams) that possess a reasonably good consistency; that possess a reasonably good color; that are reasonably free from defects; that possess a fairly good flavor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of fruit preserves (or jams) that fail to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1115 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled with fruit preserves (or jams) as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.1116 *Ascertaining the grade.* (a) The grade of fruit preserves (or jams) is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of consistency, color, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Consistency	20
Color	20
Absence of defects	20
Flavor	40
Total score	100

§ 52.1117 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1118 *Consistency*—(a) *General.* The factor of consistency refers to the extent of the dispersion and size of the fruit or fruit particles throughout, and the gel-like properties of the product.

(b) *(A) classification.* Fruit preserves (or jams) that possess a good consistency may be given a score of 17 to 20 points. "Good consistency" means that the fruit or fruit particles are dispersed uniformly throughout the product; that the product is a tender gel or may possess no more than a very slight tendency to flow, except that a slightly less viscous consistency may be present when the fruit is chiefly in the form of whole or almost whole units; and that in the following kinds the product does not have a macerated or pureed appearance but in appearance and eating quality consists of whole units or pieces of fruit particles as indicated for the respective kinds, either singly or in combination with any other kind:

(1) Apricot: Halves or pieces or combinations thereof.

(2) Cherry: Whole or almost whole pitted cherries or combinations thereof.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] In accordance with the limits specified in the definitions and standards of identity for preserves, jams. (21 CFR 29.3)

(3) Gooseberry: Whole or almost whole berries or combinations thereof.

(4) Peach (clingstone and freestone): Slices or pieces or combinations thereof.

(5) Pineapple: Crushed pieces or small pieces or combinations thereof.

(6) Strawberry: Whole or almost whole berries or combinations thereof.

(c) (*B*) *classification.* If the fruit preserves (or jams) possess a reasonably good consistency, a score of 14 to 16 points may be given. Fruit preserves (or jams) that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good consistency" means that the fruit or fruit particles are dispersed reasonably uniformly throughout the product; and that the product may be firm but not rubbery or may be noticeably viscous but not excessively thin.

(d) (*SStd*) *classification.* Fruit preserves (or jams) that fail to meet the requirements for paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1119 *Color*—(a) (*A*) *classification.* Fruit preserves (or jams) that possess a good color may be given a score of 17 to 20 points. "Good color" means that the color is bright, practically uniform throughout, and characteristic of the variety or varieties of the fruit ingredients; and that the product is free from dullness of color due to any cause (including, but not being limited to, oxidation or improper processing or improper cooling).

(b) (*B*) *classification.* If the fruit preserves (or jams) possess a reasonably good color, a score of 14 to 16 points may be given. Fruit preserves (or jams) that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the color is reasonably bright, reasonably uniform throughout, and characteristic of the variety or varieties of the fruit ingredients; however, the color may be slightly dull but may not be off color due to oxidation or improper processing or improper cooling or other causes.

(c) (*SStd*) *classification.* Fruit preserves (or jams) that for any reason fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1120 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom, in the applicable kinds, from substances ordinarily removed in the preparation for the manufacture of fruit preserves (or jams) and includes, but is not limited to, caps, leaves, stems, seeds, pits, peel, or any portions thereof; from blemished units, underdeveloped units, or otherwise damaged units; and from any defects not specifically mentioned that affect the appearance or edibility of the product.

(1) A "cluster of cap stems" means three or more joined cap stems.

(2) A "cap" means a loose or attached full cap or a portion of a cap to which at least one sepal-like bract or portion thereof is attached. A short stem that is attached to a cap is considered a part of that cap.

(3) A "short stem" means a stem that is ⅛ inch or less in length and which may include the center portion of a cap to which no sepal-like bract or portion thereof is attached. A short stem that is attached to a cap is considered a part of that cap.

(4) A "small stem" means a stem that is longer than ⅛ inch but not more than ¼ inch in length. A small stem that is attached to a cap is considered as a defect separate from that cap.

(5) A "medium stem" means a stem that is longer than ¼ inch but not more than ½ inch in length. A medium stem that is attached to a cap is considered as a defect separate from that cap.

(6) A "long stem" means a stem that is longer than ½ inch in length. A long stem that is attached to a cap is considered as a defect separate from that cap.

(7) A "woody base-stem" means any stem in grape preserves (or jams) with an enlarged woody base approximating $\frac{1}{16}$ inch or more in diameter.

(8) "Peel" means, with respect to these fruits, such as apples and peaches, that are commonly prepared for the manufacture of fruit preserves (or jams) by the removal of the skin or peel, any skin or peel whether or not it is attached.

(9) "Seeds" means, with respect to these fruits, such as apples, grapes, and pears, that are prepared for the manufacture of fruit preserves (or jams) by the removal of the seeds, the seeds of such fruit. "Seeds" in fruit preserves (or jams) prepared from citrus fruits means any seed or any portion thereof, whether or not fully developed, that measures more than $\frac{3}{16}$ inch in any dimension. Seeds are not considered as defects in fruit preserves (or jams) prepared from such fruits as figs and tomatoes.

(10) "Pit" means, with respect to those fruits, such as apricots, cherries, plums, and peaches, that are prepared for the manufacture of fruit preserves (or jams) by the removal of the pits, a whole, intact pit. Portions of pits include:

(i) A "piece of pit" which means any portion of a pit that is more than ½ inch in any dimension;

(ii) A "small piece of pit" which means any portion of a pit that is not less than ¼ inch nor more than ½ inch in any dimension;

(iii) And a "pit fragment" which means any portion of a pit that is less than ¼ inch in an dimension.

(11) "Blemished, underdeveloped, or otherwise damaged" means units of fruit in which the appearance or edible quality is damaged or blemished because of discolored skin, bruised spots, dark particles, insect or similar injury, hard areas, or units that are hard and shrivelled or damaged by mechanical, pathological, or other injury.

(b) (*A*) *classification.* Fruit preserves (or jams) that are practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means with respect to:

(1) Type II and any kind or kinds with a macerated or pureed appearance (whether of Type I or II), that the defects do not materially affect the appearance or edibility of the product; and

(2) Type I, that the defects and defective units as applicable do not exceed the allowances for U. S. Grade A as specified in Tables I, II, III, or IV of this section and that any defects whether or not specifically mentioned in such tables do not materially affect the appearance or edibility of the product.

(c) (*B*) *classification.* If the fruit preserves (or jams) are reasonably free from defects, a score of 14 to 16 points may be given. Fruit preserves (or jams) that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means with respect to:

(1) Type II and any kind or kinds with a macerated or pureed appearance (whether of Type I or II), that the defects do not seriously affect the appearance or edibility of the product; and

(2) Type I, that the defects and defective units as applicable do not exceed the allowances for U. S. Grade B as specified in Tables I, II, III, or IV of this section and that any defects whether or not specifically mentioned in such tables do not seriously affect the appearance or edibility of the product.

(d) (*SStd*) *classification.* Fruit preserves (or jams) that fail to meet the requirements for paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product. (This is a limiting rule.)

(e) *Allowances.* Ascertaining compliance, with, and explanation of, allowances in Tables I, II, III, and IV:

(1) The term "ounces" refers to "ounces of net weight" of any individual container, of the average net weight of all the containers, or of the aggregate net weight of all the containers comprising the sample as may be applicable. The allowances as stated may be interpolated into other equivalents for containers of other sizes or on an aggregate basis.

(2) When the unit of the allowance, such as "per 200 ounces", is greater than in individual containers, the net weight of all containers in the sample may be aggregated to arrive at the approximate quantity by which to determine compliance with the stated allowance. For example, in a lot consisting of approximate 8-oz. net weight containers and with defects permitted in "1 per 200 ounces", such defect would be permitted in a total of not less than twenty-five 8-oz. containers (approximately 200 ounces in the aggregate).

(3) An occasional defect may be permitted if all the containers in a sample in the aggregate constitute a net weight less than the unit of allowance, provided such defect, singly or in combination with other defects, no more than slightly affects the appearance or edibility of the product.

TABLE I—ALLOWANCES FOR DEFECTS

Kind of preserves (or jams) type I only	Grade and score range	Stems	Leaves	Caps or portions	Other extraneous material	Loose Sepal-like bracts	Seeds, pits, or portions thereof	Blemished, underdeveloped, or otherwise damaged
		Maximum allowances						
Blackberry Boysenberry Dewberry Loganberry Youngberry	U. S. Grade A (17-20 points).	Total of 1 only per 96 ounces				1 per 8 ounces	10 per 8 ounces in "seedless."	2 per 8 ounces.
	U. S. Grade B (14-16 points).	Total of 1 only per 32 ounces				3 per 8 ounces	20 per 8 ounces in "seedless."	4 per 8 ounces.
Cherry	U. S. Grade A (17-20 points).	do					1 per 32 ounces	5 per 8 ounces.
	U. S. Grade B (14-16 points).	Total of 1 only per 16 ounces					do	8 per 8 ounces.
Blueberry Elderberry Huckleberry	U. S. Grade A (17-20 points).	Total of 1 large stem or 1 leaf per 8 ounces; and 1 cluster of cap stems per 8 ounces.						3 per 8 ounces.
	U. S. Grade B (14-16 points).	Total of 3 large stems or 3 leaves per 16 ounces; and 3 clusters of cap stems per 16 ounces.						5 per 8 ounces.

TABLE II—ALLOWANCES FOR DEFECTS

Kind of preserves (or jams) type I only	Grade and score range	Stems				Leaves	Other extraneous material	Seeds, pits or portions			Peel	Blemished, under-developed or otherwise damaged
		Short (⅛" or less)	Small (over ⅛" to ¼" inclusive)	Medium (over ¼" to ½" inclusive)	Long (longer than ½")			Pit or pieces of pit	Small pieces of pit	Pit fragments		
		Maximum allowances										
Apricot	U. S. Grade A (17-20 points).	1 only per 16 ounces			None	1 only per 32 ounces.	1 only per 200 ounces.	1 only per 200 ounces.	1 only per 128 ounces.	1 only per 32 ounces.	No limit	1 unit per 8 ounces.
	U. S. Grade B (14-16 points).	1 only per 8 ounces			None	1 only per 16 ounces.	1 only per 128 ounces.	do	1 only per 64 ounces.	1 only per 16 ounces.	do	4 units per 8 ounces.
Peach Nectarine	U. S. Grade A (17-20 points).					1 only per 32 ounces.	1 only per 32 ounces.	1 only per 96 ounces.	do	do	1 square inch per 16 ounces.	2 units per 8 ounces.
	U. S. Grade B (14-16 points).					1 only per 16 ounces.	3 per 32 ounces.	1 only per 48 ounces.	1 only per 32 ounces.	1 only per 8 ounces.	1 square inch per 8 ounces.	8 units per 8 ounces.
Damson plum Green gage plum Plum (others)	U. S. Grade A (17-20 points).	Total of 1 per 8 ounces					1 only per 128 ounces.	1 only per 32 ounces			No limit	1 unit per 8 ounces.
	U. S. Grade B (14-16 points).	Total of 3 per 16 ounces					1 only per 32 ounces.	1 only per 16 ounces			do	2 units per 8 ounces.

TABLE III—ALLOWANCES FOR DEFECTS

Kind of preserves (or jams) type I only	Grade and score range	Stems	Leaves	Other extraneous material	Loose sepal-like bracts	Seeds, pits, or portions thereof	Peel	Blemished, underdeveloped, or otherwise damaged
		Maximum allowances						
Cranberry Currant (other than black) Currant, red Fig Gooseberry Rhubarb Tomato Tomato, yellow	U. S. Grade A (17-20 points).	Total of 1 per 32 ounces.		1 only per 200 ounces.	3 per 16 ounces		1 square inch per 16 ounces if prepared by peeling.	2 units per 8 ounces.
	U. S. Grade B (14-16 points).	do		1 only per 128 ounces.	5 per 16 ounces		1 square inch per 8 ounces if prepared by peeling.	4 units per 8 ounces.
Grapefruit Orange Tangerine	U. S. Grade A (17-20 points).	do		1 only per 200 ounces.		1 per 16 ounces		3 units per 8 ounces.
	U. S. Grade B (14-16 points).	do		1 only per 128 ounces.		1 per 8 ounces		5 units per 8 ounces.
Pineapple	U. S. Grade A (17-20 points).							2 units per 8 ounces.
	U. S. Grade B (14-16 points).							4 units per 8 ounces.

TABLE IV—ALLOWANCES FOR DEFECTS

Kind of preserves (or jams) type I only	Grade and score range	Stems				Leaves	Caps or portions	Other extraneous material	Loose sepal-like bracts	Seeds	Blemished, underdeveloped or otherwise damaged
		Short (⅛" or less)	Small (over ⅛" to ¼" inclusive)	Medium (over ¼" to ½" inclusive)	Long (longer than ½")						
		Maximum allowances									
Grape	U. S. Grade A (17-20 points).	3 short or small thin stems, including only 1 woody base stem per 16 ounces.				1 only per 32 ounces.		1 only per 200 ounces.	3 per 16 ounces.	3 seeds per 8 ounces.	2 units per 8 ounces.
	U. S. Grade B (14-16 points).	3 short or small thin stems, including only 1 woody base stem per 8 ounces.				do		1 only per 128 ounces.	5 per 16 ounces.	6 seeds per 8 ounces.	4 units per 8 ounces.
Strawberry	U. S. Grade A (17-20 points).	4 per 8 ounces.	2 small or medium or long stems, including only 1 long stem—			½ square inch if measurable by area or—1 piece harmless extraneous material such as weeds or grass. per 32 ounces					Do.
	U. S. Grade B (14-16 points).	8 per 8 ounces.	4 small or medium or long stems, including only 1 long stem—			½ square inch if measurable by area or—1 piece harmless extraneous material such as weeds or grass. per 32 ounces					8 units per 8 ounces.
Raspberry Raspberry, black Raspberry, red	U. S. Grade A (17-20 points).	4 per 8 ounces.	2 small or medium or long stems, including only 1 long stem—			½ square inch if measurable by area or—1 piece harmless extraneous material such as weeds or grass. per 32 ounces					4 units per 8 ounces.
	U. S. Grade B (14-16 points).	8 per 8 ounces.	4 small or medium or long stems, including only 1 long stem—			½ square inch if measurable by area or—1 piece harmless extraneous material such as weeds or grass. per 32 ounces					8 units per 8 ounces.

§ 52.1121 *Flavor*—(a) *(A) classification.* Fruit preserves (or jams) that possess a good flavor may be given a score of 34 to 40 points. "Good flavor" means:

(1) that the product possesses a good and distinct flavor; and

(2) that the flavor is characteristic of the applicable kind of fruit ingredient or applicable kinds of fruit ingredients.

(b) *(B) classification.* If the fruit preserves (or jams) possess a fairly good flavor, a score of 28 to 33 points may be given. Fruit preserves (or jams) that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means:

(1) that the product possesses a flavor reasonably characteristic of the applicable kind of fruit ingredient or applicable kinds of fruit ingredients; and

(2) may possess a slightly caramelized flavor but is free from any bitter flavor or other objectionable flavor or off flavor of any kind.

(c) *(SStd) classification.* Fruit preserves (or jams) that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1122 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of fruit preserves (or jams), the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample fall more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1123 *Score sheet for fruit preserves (or jams).*

Size and kind of container			----
Container mark or identification			----
Label			----
Net weight (in ounces)			----
Vacuum (in inches)			----
Type			----
Kind or kinds			----
Soluble solids (percent by refractometer)			----
Factors	Score points		
Consistency	20	(A) 17-20 (B) [1]14-16 (SStd.) [1] 0-13	
Color	20	(A) 17-20 (B) [1]14-16 (SStd.) [1] 0-13	
Absence of defects	20	(A) 17-20 (B) [1]14-16 (SStd.) [1] 0-13	
Flavor	40	(A) 34-40 (B) [1]28-33 (SStd.) [1] 0-27	
Total score	100		
Grade			----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT [1]

PRODUCT DESCRIPTION, AND GRADES

§ 52.1141 *Product description.* Canned grapefruit, commonly known as canned grapefruit sections, is prepared from sound, mature grapefruit (Citrus paradisi) which have been properly washed; the segments thereof have been separated; and the core, seeds, and major portions of membrane have been removed. The product is packed with or without the addition of water, grapefruit juice, or sweetening ingredients and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.1142 *Grades of canned grapefruit.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned grapefruit that possesses a drained weight or average drained weight, as the case may be, of not less than 58 percent of the capacity of the container in containers smaller than the equivalent of No. 2 cans and of not less than 60 percent of the capacity of the container in containers the equivalent of No. 2 cans and larger; that consists of not less than 75 percent by weight of the drained grapefruit which is in whole segments or almost whole segments; that possesses a good color; that is practically free from defects; that possesses a good character; that possesses a good flavor and odor; and that scores not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned grapefruit that possesses a drained weight or average drained weight, as the case may be, of not less than 55 percent of the capacity of the container regardless of the size of the container; that consists of not less than 50 percent by weight of the drained grapefruit which is in whole segments or almost whole segments; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and that scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Broken" is the quality of canned grapefruit that possesses a drained weight or average drained weight, as the case may be, of not less than 55 percent of the capacity of the container; that consists of less than 50 percent by weight of the drained grapefruit which is in whole or almost whole segments; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned grapefruit that fails to meet the requirements of U. S. Grade B or U. S. Choice and U. S. Broken.

LIQUID MEDIA AND FILL OF CONTAINER

§ 52.1143 *Recommended designations of liquid media and Brix measurements.* "Cut-out" requirements for liquid media in canned grapefruit are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. It is recommended that canned grapefruit have the following indicated "cut-out" Brix measurement for the respective designation, which designations include, but are not limited to, the following:

Designation of liquid media:	*Brix measurement*
Heavy sirup	18° or more.
Light sirup	16° or more, but less than 18°.
Slightly sweet	12° or more, but less than 16°.

§ 52.1144 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned grapefruit be filled with grapefruit as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.1145 *Ascertaining the grade.* (a) The grade of canned grapefruit is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of drained weight, wholeness, color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Drained weight	20
Wholeness	20
Color	20
Absence of defects	20
Character	20
Total score	100

§ 52.1146 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.1147 *Drained weight*—(a) *General.* The drained weight of canned grapefruit is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch, ±3 percent, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and the grapefruit less the weight of the dry sieve. The grapefruit thus drained is referred to in this section as "drained grapefruit" or "drained weight." A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can. "Capacity of the container" means the weight of distilled water at 68° Fahrenheit which the sealed container will hold.

(b) (*A*) *classification.* Canned grapefruit in containers smaller than the equivalent of No. 2 cans that possesses a drained weight of not less than 58 percent of the capacity of the container may be given a score of 18 to 20 points for the respective containers as outlined in Table I; canned grapefruit in containers the equivalent of No. 2 cans and larger that possesses a drained weight of not less than 60 percent of the capacity of the container may be given a score of 18 to 20 points for the respective containers as outlined in Table II. Whenever more than 1 container of the product is being graded, the score for drained weight of each container is determined by averaging the drained weights of the containers. If the average drained weight indicates a score of 18 to 20 points (in accordance with Table I or II) such score will be assigned to each container: *Provided,* That the drained weight of no individual container indicates a score of less than 16 points. However, if any individual container scores less than 16 points, each container will be assigned the score for its own drained weight.

(c) (*B*) *classification.* If the drained weight of the canned grapefruit in containers smaller than the equivalent of No. 2 cans is less than 58 percent of the capacity of the container, or if the drained weight of the canned grapefruit in containers the equivalent of No. 2 cans and larger is less than 60 percent of the capacity of the container but in either case the drained weight is not less than 55 percent of the capacity of the container, a score of 16 or 17 points may be given for the respective containers as outlined in Table I or II. Whenever more than 1 container of the product is being graded, the score for drained weight of each container is determined by averaging the drained weights of the containers. If the average drained weight indicates a score of 16 or 17 points (in accordance with Table I or II) such score will be assigned to each container: *Provided,* That the drained weight of no individual container indicates a score of less than 14 points. However, if any individual container scores less than 14 points, each container will be assigned the score for its own drained weight. Canned grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

TABLE I—SCORE FOR DRAINED WEIGHTS OF CANNED GRAPEFRUIT

Grade classification	Score points	Percentage that drained weight is of capacity of container	Drained weight on basis of container designation and size	
			8Z Tall (2¹¹⁄₁₆ x 3⁴⁄₁₆ inches)	No. 303 (3³⁄₁₆ x 4⁶⁄₁₆ inches)
			Ounces	*Ounces*
U. S. Grade A or U. S. Fancy	20	61 percent or more	5.28 or more	10.28 or more.
	19	59½ to 61 percent	5.15 to 5.27, inclusive	10.03 to 10.27, inclusive.
	18	58 to 59½ percent	5.02 to 5.14, inclusive	9.77 to 10.02, inclusive.
U. S. Grade B or U. S. Choice or U. S. Broken.	17	56½ to 58 percent	4.89 to 5.01, inclusive	9.52 to 9.76, inclusive.
	16	55 to 56½ percent	4.76 to 4.88, inclusive	9.27 to 9.51, inclusive.
Substandard	15	52½ to 55 percent	4.54 to 4.75, inclusive	8.85 to 9.26, inclusive.
	14	50 to 52½ percent	4.33 to 4.53, inclusive	8.43 to 8.84, inclusive.
	13 or less	Less than 50 percent	Less than foregoing drained weights	

TABLE II—SCORE FOR DRAINED WEIGHTS OF CANNED GRAPEFRUIT

Grade classification	Score points	Percentage that drained weight is of capacity of container	Drained weight on basis of container designation and size		
			No. 2 (3⁷⁄₁₆ x 4⁹⁄₁₆ inches)	No. 3 Cyl. (4⁴⁄₁₆ x 7 inches)	No. 5 (5²⁄₁₆ x 5¹⁰⁄₁₆ inches)
			Ounces	*Ounces*	*Ounces*
U. S. Grade A or U. S. Fancy.	20	65 percent or more	13.33 or more	33.56 or more	38.42 or more.
	19	62½ to 65 percent	12.84 to 13.32, inclusive.	32.27 to 33.55, inclusive.	36.94 to 38.41, inclusive.
	18	60 to 62½ percent	12.33 to 12.83, inclusive.	30.98 to 32.26, inclusive.	35.46 to 36.93, inclusive.
U. S. Grade B or U. S. Choice or U. S. Broken.	17	57½ to 60 percent	11.79 to 12.32, inclusive.	29.69 to 30.97, inclusive.	33.99 to 35.45, inclusive.
	16	55 to 57½ percent	11.28 to 11.78, inclusive.	28.40 to 29.68, inclusive.	32.51 to 33.98, inclusive.
Substandard	15	52½ to 55 percent	10.77 to 11.27, inclusive.	27.10 to 28.39, inclusive.	31.03 to 32.50, inclusive.
	14	50 to 52½ percent	10.25 to 10.76, inclusive.	25.81 to 27.09, inclusive.	29.55 to 31.02, inclusive.
	13 or less	Less than 50 percent.	Less than foregoing drained weights		

(d) (*SStd*) *classification.* Canned grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1148 *Wholeness*—(a) *General* "Whole" or "whole segment" means any grapefruit segment that retains its apparent original conformation and is not excessively trimmed.

(1) "Almost whole" or "almost whole segment" means any portion of a grapefruit segment that is not less than 75 percent of the apparent original segment size.

(2) "Broken" or "broken segment" means (i) any portion of a grapefruit segment that is less than 75 percent of the apparent original segment size, (ii) a "whole segment" or "almost whole segment" that is excessively trimmed, and (iii) portions of segments that are joined together only by a "thread" or membrane.

(b) (*A*) *classification.* Canned grapefruit that consists of not less than 75 percent by weight of the drained grapefruit in whole segments or almost whole segments may be given a score of 18 to 20 points.

(c) (*B*) *classification.* If the canned grapefruit consists of not less than 50 percent by weight of the drained grapefruit in whole segments or almost whole segments, a score of 16 or 17 points may be given. Canned grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(d) (*Broken*) *classification.* If less than 50 percent by weight of the drained grapefruit is in whole segments or almost whole segments, a score of 0 to 15 points may be given. Canned grapefruit that falls into this classification shall not be graded above U. S. Broken, regardless of the total score for the product (this is a limiting rule).

§ 52.1149 *Color*—(a) (*A*) *classification.* Canned grapefruit that possesses a good color may be given a score of 18 to 20 points. "Good color" means a practically uniform, bright, typical color free from any noticeable tinge of amber.

(b) (*B*) *classification.* If the canned grapefruit possesses a reasonably good color, a score of 16 or 17 points may be given. Canned grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means a fairly bright color which may be variable in color but is not off color for any reason.

(c) (*SStd*) *classification.* Canned grapefruit that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1150 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, from seeds, from portions of albedo, from portions of tough membrane, and from damaged units.

(1) "Harmless extraneous material" means leaves, portions of leaves, small pieces of peel, and other similar material that is harmless.

(2) "Seed" means any seed or any portion thereof, whether or not fully developed, that measures more than 3/16 inch in any dimension. A "large seed" is one that may be plump and measures more than 3/8 inch in any dimension.

(3) "Damaged unit" means any grapefruit segment or portion thereof that is damaged by pathological injury, by lye peeling, by discoloration, or by similar injury or that is damaged to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) *(A) classification.* Canned grapefruit that is practically free from defects may be given a score of 18 to 20 points. "Practically free from defects" means that no harmless extraneous material is present; that not more than 5 percent by weight of the drained grapefruit may be damaged units; and that for each 20 ounces of net weight there may be present:

(1) Not more than 4 seeds including not more than one large seed; and

(2) Not more than an aggregate area of 2 square inches on the units covered by tough membrane or albedo.

(c) *(B) classification.* If the canned grapefruit is reasonably free from defects, a score of 16 or 17 points may be given. Canned grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that not more than 15 percent by weight of the drained grapefruit may be damaged units; and that for each 20 ounces of net weight there may be present:

(1) Not more than 1 small piece of harmless extraneous material;

(2) Not more than 12 seeds including not more than 3 large seeds; and

(3) Not more than an aggregate area of 3 square inches on the units covered by tough membrane or albedo.

(d) *(SStd) classification.* Canned grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1151 *Character*—(a) *General.* The factor of character refers to the structure and condition of the cells of the grapefruit and reflects the maturity of the grapefruit.

(b) *(A) classification.* Canned grapefruit that possesses a good character may be given a score of 18 to 20 points. "Good character" means that the grapefruit is moderately firm and fleshy; that the segments or portions thereof possess a juicy, cellular structure free from dry cells, or "ricey" cells, or fibrous cells that materially affect the appearance or eating quality of the product; and that the product is reasonably free from loose floating cells.

(c) *(B) classification.* If the canned grapefruit possesses a reasonably good character, a score of 16 or 17 points may be given. Canned grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the grapefruit may be affected, but not seriously affected, by dry cells, "ricey" cells, or fibrous cells that materially affect the appearance or eating quality of the product.

(d) *(SStd) classification.* Canned grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS

§ 52.1152 *Explanation of terms.* (a) "Good flavor and odor" means that the product has a distinct and normal flavor and odor typical of canned grapefruit and is free from objectionable odors and objectionable flavors of any kind.

(b) "Fairly good flavor and odor" means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(c) "Brix" means the degrees Brix of the liquid media surrounding the canned grapefruit when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If the liquid media is tested at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in the "Official Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of the liquid media may be determined by any other method which gives equivalent results.

LOT CERTIFICATION TOLERANCES

§ 52.1153 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned grapefruit, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1154 *Score sheet for canned grapefruit.*

Factors	Score points			
Size and kind of container				
Container mark or identification				
Label				
Net weight (ounces)				
Vacuum (inches)				
Drained weight (ounces)				
Brix measurement				
Sirup designation (heavy, light, etc.)				
Count (whole segments or almost whole segments)				
Drained weight	20	(A) (B), (Bkn) (SStd)	18-20 [1] 16-17 [1] 0-15	
Wholeness	20	(A) (B) (Bkn)	18-20 [1] 16-17 [1] 0-15	
Color	20	(A) (B), (Bkn) (SStd)	18-20 [1] 16-17 [1] 0-15	
Absence of defects	20	(A) (B), (Bkn) (SStd)	18-20 [1] 16-17 [1] 0-15	
Character	20	(A) (B), (Bkn) (SStd)	18-20 [1] 16-17 [1] 0-15	
Total score	100			
Flavor and odor	( ) Good. ( ) Fairly good.			
Grade				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN GRAPEFRUIT[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1171 *Product description.* Frozen grapefruit is prepared from the matured fruit of the grapefruit tree (Citrus paradisi), after the fruit has been washed and peeled, and has been separated into segments by removing the core, seeds, and membrane; may be packed with or without packing media; and is frozen and stored at temperatures necessary for the preservation of the product.

§ 52.1172 *Grades of frozen grapefruit.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen grapefruit of which not less than 75 percent by weight of the grapefruit consists of segments that are whole or almost whole; that possesses a practically uniform, bright, typical color; that is practically free from defects; that possesses a good character; that possesses a normal flavor and odor; and score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen grapefruit of which not less than 50 percent by weight of the grapefruit consists of segments that are whole or almost whole; that possesses a reasonably uniform and reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a normal flavor and odor; and scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) "U. S. Broken" is the quality of frozen grapefruit of which less than 50 percent by weight of the grapefruit consists of segments that are whole or almost whole; that possesses a reasonably uniform and reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a normal flavor and odor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of frozen grapefruit that fails to meet the requirements of U. S. Grade B or U. S. Choice and U. S. Broken.

FACTORS OF QUALITY

§ 52.1173 *Ascertaining the grade.* (a) The grade of frozen grapefruit is determined immediately after thawing to the extent that the units may be separated easily. Such grade may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Wholeness, color, absence of defects, and character.

(b) The relative importance of each factor has been expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Wholeness	20
Color	20
Absence of defects	30
Character	30
Total score	100

(c) "Normal flavor and odor" means that the grapefruit is free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1174 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.1175 *Wholeness*—(a) *Definitions.* (1) "Whole" or "whole segment" means any segment that retains its apparent original conformation, is not excessively trimmed, and weighs not less than ⅜ ounce. A whole segment that is excessively trimmed or that weighs less than ⅜ ounce is considered a broken segment.

(2) "Almost whole" or "almost whole segment" means any portion of a segment that is not less than 75 percent of the apparent original segment size, is not excessively trimmed, and weighs not less than ⅜ ounce. An almost whole segment that is excessively trimmed or that weighs less than ⅜ ounce is considered a broken segment.

(3) "Broken" or "broken segment" means a portion of a segment that is less than 75 percent of the apparent original segment size, a whole or almost whole segment that is excessively trimmed, a whole or almost whole segment that weighs less than ⅜ ounce, and portions of segments that are joined together only by a "thread" or membrane.

(b) (*A*) *classification.* Frozen grapefruit that consists of not less than 75 percent by weight of units that are whole or almost whole segments may be given a score of 18 to 20 points.

(c) (*B*) *classification.* If the frozen grapefruit consists of at least 50 percent but less than 75 percent by weight of units that are whole or almost whole segments, a score of 16 or 17 points may be given. Frozen grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(d) (*Broken*) *classification.* If the frozen grapefruit consists of less than 50 percent by weight of the units that are whole or almost whole segments, a score of 0 to 15 points may be given. Frozen grapefruit that falls into this classification shall not be graded above U. S. Broken, regardless of the total score for the product (this is a limiting rule).

(e) *General.* The evaluation of the score points for the factor of wholeness may be determined from Table No. I of this paragraph which indicates the score range in the respective grades and denotes the minimum requirement for whole or almost whole segments and the maximum allowances for broken segments for the score indicated.

TABLE No. I

Grade	Score points	Whole or almost whole segments	Broken segments
		Minimum (by weight)	*Maximum (by weight)*
U. S. Grade A or U. S. Fancy.	20	100%	0%
	19	85%	15%
	18	75%	25%
U. S. Grade B or U. S. Choice.	17	60%	40%
	16	50%	50%
U. S. Broken	15	45%	55%
	14	40%	60%
	13	35%	65%
	12	30%	70%
	11	25%	75%
	10	20%	80%
	9	15%	85%
	8	10%	90%
	7	5%	95%
	6	0%	[1]
	5	0%	[1]
	4	0%	[1]
	3	0%	[1]
	2	0%	[1]
	1	0%	[1]
	0	0%	[1]

[1] Large to small: 100% and depending on size of broken units.

§ 52.1176 *Color*—(a) *General.* Federal inspection certificates may designate pink grapefruit whenever that fact is determined.

(1) The uniformity and intensity of the typical color is considered in determining the factor of color.

(b) (*A*) *classification.* Frozen grapefruit that possesses a practically uniform, bright, typical color may be given a score of 18 to 20 points. "Practically uniform, bright, typical color" means that the grapefruit may possess not more than a slight variation from the typical color of properly matured grapefruit or pink grapefruit from which prepared.

(c) (*B*) *classification.* If the frozen grapefruit possesses a reasonably uniform and reasonably good color, a score of 16 or 17 points may be given. Frozen grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably uniform and reasonably good color" means that the grapefruit may be variable in color, is fairly bright, and is not off color.

(d) (*SStd*) *classification.* Frozen grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1177 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, from seeds, from portions of covering membrane, and from damaged units.

(1) "Harmless extraneous material" means leaves, small pieces of peel, and other similar material.

(2) "Seed" means any seed, whether or not fully developed, that measures more than 3/16 inch in any dimension. A "large seed" is one that may be plump and measures more than ⅜ inch in any dimension.

(3) "Damaged unit" means any unit that is damaged by pathological injury, by lye peeling, by discoloration, or by similar injury or that is damaged to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) (*A*) *classification.* Frozen grapefruit that is practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that no harmless extraneous material is present; that not more than 5 percent by weight of the grapefruit may be damaged units; and that for each 16 ounces of net weight there may be present:

(1) Not more than 6 seeds including not more than 1 large seed; and

(2) Not more than an aggregate area of 1 square inch on the units covered by membrane.

(c) (*B*) *classification.* If the frozen grapefruit is reasonably free from defects, a score of 24 to 26 points may be given. Frozen grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that not more than 10 percent by weight of the grapefruit may be damaged units; and that for each 16 ounces of net weight there may be present:

(1) Not more than 1 small piece of harmless extraneous material;

(2) Not more than 12 seeds including not more than 3 large seeds; and

(3) Not more than an aggregate area of 2 square inches on the units covered by membrane.

(d) (*SStd*) *classification.* Frozen grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 23 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) *General.* The evaluation of the score points for the factor of absence of defects may be determined from Table No. II of this paragraph which indicates the maximum allowances for each type of defect for the score indicated.

TABLE NO. II

Grade and score points	Harmless extraneous material	Damaged units	Seeds	Aggregate area covered by membrane
	Maximum			
	Per 16 ounces	By weight	Per 16 ounces	
U. S. Grade A or U. S. Fancy:				
30	None	1%	None	None.
29	None	2%	2, but no large seeds	½ square inch.
28	None	3%	4, but no large seeds	¾ square inch.
27	None	5%	6, including 1 large seed	1 square inch.
U. S. Grade B or U. S. Choice and Broken:				
26	1 small piece	7%	8, including 1 large seed	1½ square inches.
25	1 small piece	9%	10, including 2 large seeds	1¾ square inches.
24	1 small piece	10%	12, including 3 large seeds	2 square inches.
U. S. Grade D or Substandard: 23 or less	More than allowances permitted for 24 points.			

§ 52.1178 *Character*—(a) *General.* The factor of character refers to the structure and condition of the cells and reflects the maturity of the grapefruit.

(b) *(A) classification.* Frozen grapefruit that possesses a good character may be given a score of 27 to 30 points. "Good character" means that the grapefruit is moderately firm and fleshy; that the segments possess a well-developed, juicy, cellular structure; that the product is fairly free from loose cell sacs; and that not more than 5 percent by weight of the grapefruit consists of soft, fibrous, or "ricey" segments.

(c) *(B) classification.* If the frozen grapefruit possesses a reasonably good character, a score of 24 to 26 points may be given. Frozen grapefruit that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the grapefruit is fairly firm and fleshy and that not more than 15 percent by weight of the grapefruit consists of soft, fibrous, or "ricey" segments.

(d) *(SStd) classification.* Frozen grapefruit that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 23 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1179 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen grapefruit, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1180 *Score sheet for frozen grapefruit.*

Size and kind of container				
Container code or marking				
Label (style of pack: ratio of fruit-sugar, etc., if shown)				
Net weight				
Color (if "pink" varieties)				
Factors	Score points			
Wholeness	20	(A)	18–20	
		(B)	[1] 16–17	
		(Bkn)	[1] 0–15	
Color	20	(A)	18–20	
		(B)	[1] 16–17	
		(D)	[1] 0–15	
Absence of defects	30	(A)	27–30	
		(B)	[1] 24–26	
		(D)	[1] 0–23	
Character	30	(A)	27–30	
		(B)	[1] 24–26	
		(D)	[1] 0–23	
Total score	100			
Normal flavor and odor				
Grade				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT JUICE[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1191 *Product description.* Canned grapefruit juice is the undiluted, unconcentrated, unfermented juice obtained from mature fresh fruit of the grapefruit tree (Citrus paradisi) which fruit has been properly washed; is packed with or without the addition of sweetening ingredients; is sufficiently processed by heat to assure preservation of the product; and is packed in containers which are hermetically sealed.

§ 52.1192 *Grades of canned grapefruit juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned grapefruit juice that shows no coagulation; that possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned grapefruit juice that may show slight coagulation; that possesses a good color; is fairly free from defects; that possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned grapefruit juice that fails to meet to the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.1193 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that the container be filled as full as practicable with grapefruit juice and that the product occupy not less than 90 percent of the total capacity of the container.

FACTORS OF QUALITY

§ 52.1194 *Ascertaining the grade.* (a) The grade of canned grapefruit juice may be ascertained by considering, in addition to the requirements in § 52.1192 of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor has been expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1195 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1196 *Color*—(a) *(A) classification.* Canned grapefruit juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means (1) in the case of canned grapefruit juice prepared from white-fleshed grapefruit that the color is bright and typical of juice freshly extracted from white-fleshed grapefruit and is free from browning due to scorching, oxidation, caramelization, or other causes; and (2) in the case of canned grapefruit juice prepared from pink-fleshed grapefruit, that the color is bright, and typical of juice freshly extracted from fairly deep-pink-fleshed grapefruit, is free from browning due to scorching, oxidation, caramelization, or other causes, and is so distinctive in color as to distinguish it clearly from canned grapefruit juice prepared from a mixture of white-fleshed grapefruit and pink-fleshed grapefruit or from light colored pink-fleshed grapefruit the juice of which is so light in color that it cannot be distinguished from such a mixture.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

(b) *(B) classification.* If the canned grapefruit juice possesses a good color, a score of 14 to 16 points may be given. Canned grapefruit juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means (1) in the case of canned grapefruit juice prepared from white-fleshed grapefruit, that the color is fairly typical of juice extracted from white-fleshed grapefruit and may be dull or show evidence of slight browning, but is not off color; and (2) in the case of canned grapefruit juice prepared from pink-fleshed grapefruit and mixtures of white-fleshed grapefruit and pink-fleshed grapefruit that the color is fairly typical of juice extracted from pink-fleshed grapefruit or mixtures of white-fleshed grapefruit and pink-fleshed grapefruit and may be dull or show evidence of slight browning, but is not off color.

(c) *(SStd) classification.* Canned grapefruit juice that for any reason fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points, and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1197 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from free and suspended pulp, recoverable oil, seeds and seed particles, or other defects.

(1) "Free and suspended pulp" means particles of membrane, core, skin, and other similar extraneous material in canned grapefruit juice.

(2) Canned grapefruit juice that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the juice may contain not more than 10 percent free and suspended pulp and that there may be present not more than 0.015 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that more than slightly affect the appearance of the product.

(b) *(A) classification.* If the canned grapefruit juice is fairly free from defects, a score of 28 to 33 points may be given. Canned grapefruit juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the juice may contain not more than 15 percent free and suspended pulp and that there may be present not more than 0.020 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that materially affect the appearance of the product.

(c) *(SStd) classification.* If the canned grapefruit juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Canned grapefruit juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1198 *Flavor*—(a) *(A) classification.* (1) Canned grapefruit juice that possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means a fine, distinct canned grapefruit juice flavor which is free from off flavors of any kind and meets the following requirements:

(i) Brix—Not less than 9.5 degrees.

(ii) Acid—Not less than 0.90 gram nor more than 2.0 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 7 to 1 nor more than 14 to 1.

(2) Canned grapefruit juice is considered "sweet" if the juice possesses a very good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 1.0 gram nor more than 2.0 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 9 to 1 nor more than 14 to 1, provided that when the Brix is 16 degrees or more, the Brix-acid ratio may be less than 9 to 1.

(b) *(C) classification.* (1) If the canned grapefruit juice possesses a good flavor, a score of 28 to 33 points may be given. Canned grapefruit juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good flavor" means a good, normal canned grapefruit juice flavor which is free from off flavors of any kind and meets the following requirements:

(i) Brix—Not less than 9.0 degrees.

(ii) Acid—Not less than 0.75 gram (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 6.5 to 1.

(2) Canned grapefruit juice is considered "sweet" if the juice possesses a good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.85 gram (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 9 to 1, provided that when the Brix of the juice is 16 degrees or more, the Brix-acid ratio may be less than 9 to 1.

(c) *(SStd) classification.* Canned grapefruit juice that fails to meet the requirements of paragraph (b) of this section, or is off flavor or unpalatable for any reason, may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1199 *Definitions of terms as used in the standards.* (a) "Brix" means the degrees Brix of canned grapefruit juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned grapefruit juice may be determined by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as anhydrous citric acid) per 100 ml. of juice in canned grapefruit juice determined by titration with standard sodium hydroxide solution using phenolphthalein indicator.

§ 52.1200 *Explanation of analyses.* (a) Free and suspended pulp is determined by the following method:

(1) Graduated centrifuge tubes with a capacity of 50 ml. are filled with juice and placed in a suitable centrifuge. The speed is adjusted, according to diameter, as indicated in Table No. I, and the juice is centrifuged for exactly 10 minutes. As used in this subpart, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating position. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE NO. I

Diameter	Approximate revolutions per minute	Diameter	Approximate revolutions per minute
10 inches	1,609	15½ inches	1,292
10½ inches	1,570	16 inches	1,271
11 inches	1,534	16½ inches	1,252
11½ inches	1,500	17 inches	1,234
12 inches	1,468	17½ inches	1,216
12½ inches	1,438	18 inches	1,199
13 inches	1,410	18½ inches	1,182
13½ inches	1,384	19 inches	1,167
14 inches	1,359	19½ inches	1,152
14½ inches	1,336	20 inches	1,137
15 inches	1,313		

(b) Recoverable oil is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2.[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* Exactly 2 liters of juice are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from bottom to top, and bring the juice to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute. By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(i) The number of milliliters of oil recovered divided by 20 equals the percent by volume of recoverable oil.

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[2] Filed with the Federal Register Division as part of the original document.

LOT CERTIFICATION TOLERANCES

§ 52.1201 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned grapefruit juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1202 *Score sheet for canned grapefruit juice.*

Size and kind of container				------
Container mark or identification				------
Label				------
Liquid measure (fl. ounces)				------
Vacuum (in inches)				------
Brix (degrees)				------
Acid (anhydrous citric: grams/100 ml.)				------
Brix-acid ratio				------
Pulp (free and suspended) percent				------
Recoverable oil (percent by volume)				------
Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1]14-16	
		(D)	[1]0-13	
Absence of defects	40	(A)	34-40	
		(C)	[1]28-33	
		(D)	[1]0-27	
Flavor	40	(A)	34-40	
		(C)	[1]28-33	
		(D)	[1]0-27	
Total score	100			
Grade				------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED GRAPE FRUIT JUICE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1221 *Product description.* Frozen concentrated grapefruit juice is the frozen product of concentrated, unfermented juice obtained from sound, mature grapefruit (Citrus paradisi). The fruit is prepared by sorting and by washing prior to extraction of the juice to assure a clean product. Upon extraction of such juice, it is concentrated; and single-strength grapefruit juice is admixed to the concentrate. The concentrated grapefruit juice is packed in accordance with good commercial practice and is frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.1222 *Styles of frozen concentrated grapefruit juice*—(a) *Style I, without sweetening ingredient added.* The Brix value of the finished concentrate shall be not less than 38 degrees nor more than 42 degrees.

(b) *Style II, with sweetening ingredient added.* The finished concentrate, exclusive of added sweetening ingredient, has a Brix value of not less than 36 degrees; and the finished concentrate, including added sweetening ingredient, shall have a Brix value of not less than 38 degrees but not more than 48 degrees.

§ 52.1223 *Grades of frozen concentrated grapefruit juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen concentrated grapefruit juice which reconstitutes properly and of which the reconstituted juice possesses the appearance of fresh grapefruit juice; possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen concentrated grapefruit juice which reconstitutes properly and of which the reconstituted juice possesses a good color; is reasonably free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen concentrated grapefruit juice that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1224 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled with frozen concentrated grapefruit juice as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.1225 *Ascertaining the grade.* (a) The grade of frozen concentrated grapefruit juice is ascertained by considering in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1226 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1227 *Color*—(a) (*A*) *classification.* Frozen concentrated grapefruit juice of which the reconstituted juice possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the color is bright and typical of freshly extracted grapefruit juice and is free from any trace of browning.

(b) (*B*) *classification.* If the reconstituted juice possesses a "good color", a score of 14 to 16 points may be given. Frozen concentrated grapefruit juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good color" means that the color is typical of freshly extracted grapefruit juice which may be slightly dull or show traces of browning but is not off color for any reason.

(c) (*SStd*) *classification.* If the reconstituted juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 13 points may be given. Frozen concentrated grapefruit juice that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1228 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds and portions thereof, from excessive juice cells, from free and suspended pulp, from recoverable oil, and from other defects.

(1) "Free and suspended pulp" means particles of membrane, core, and peel and other similar extraneous materials in the reconstituted grapefruit juice.

(b) (*A*) *classification.* Frozen concentrated grapefruit juice of which the reconstituted juice is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not materially affect the appearance or drinking quality of the juice; (2) juice cells that do not materially affect the appearance or drinking quality of the juice; (3) other defects that are not more than slightly objectionable; and (4) not more than 10 percent free and suspended pulp. To score in this classification the frozen concentrated grapefruit juice may contain not more than 0.040 milliliter of recoverable oil per 100 grams of the concentrated product.

(c) (*B*) *classification.* If the reconstituted juice is reasonably free from defects, a score of 28 to 33 points may be given. Frozen concentrated grapefruit juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not seriously affect the appearance or drinking quality of the juice; (2) juice cells that do not seriously affect the appearance or drinking quality of the juice; (3) other defects that are not materially objectionable; and (4) not more than 15 percent free and suspended pulp. To score in this classification the frozen concentrated garpefruit juice may contain not more than 0.048 milliliter of recoverable oil per 100 grams of the concentrated product.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) *(SStd) classification.* Frozen concentrated grapefruit juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1229 *Flavor*—(a) *(A) classification.* Frozen concentrated grapefruit juice of which the reconstituted juice possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means that the flavor is fine, distinct, and substantially typical of freshly extracted grapefruit juice. To score not less than 34 points frozen concentrated grapefruit juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 8 to 1 nor more than 14 to 1 (see Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 9.5 to 1 nor more than 13 to 1 (see Table II).

(b) *(B) classification.* If the reconstituted juice possesses a good flavor, a score of 28 to 33 points may be given. Frozen concentrated grapefruit juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good flavor" means that the flavor is fairly typical of freshly extracted grapefruit juice and is free from abnormal flavors and off flavors of any kind. To score not less than 28 points frozen concentrated grapefruit juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 7 to 1 nor more than 16 to 1 (see Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 8 to 1 nor more than 13 to 1 (see Table II).

(c) *(SStd) classification.* If the frozen concentrated grapefruit juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Frozen concentrated grapefruit juice that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1230 *Definitions of terms as used in these standards.* (a) "Reconstituted juice" means the product obtained by mixing thoroughly 3 parts by volume of distilled water and one part by volume of frozen concentrated grapefruit juice.

(b) "Reconstitutes properly" means that the reconstituted juice shows no material separation of colloidal or suspended matter leaving a zone of definitely clear liquid without any turbidity, after standing four (4) hours at a temperature of not less than 68 degrees Fahrenheit in a clear glass tube or cylinder (such as a 50 ml. graduated cylinder).

(c) "Acid" means the percent by weight of acid (calculated as anhydrous citric acid) in frozen concentrated grapefruit juice.

TABLE I—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED GRAPEFRUIT JUICE

STYLE I. WITHOUT SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 8:1	Ratio 14:1	Ratio 7:1	Ratio 16:1
	Acid percent by weight		Acid percent by weight	
	Maximum	Minimum	Maximum	Minimum
38.0°	4.75	2.71	5.43	2.38
38.1°	4.76	2.72	5.44	2.38
38.2°	4.78	2.73	5.46	2.39
38.3°	4.79	2.74	5.47	2.39
38.4°	4.80	2.74	5.49	2.40
38.5°	4.81	2.75	5.50	2.41
38.6°	4.83	2.76	5.51	2.41
38.7°	4.84	2.76	5.53	2.42
38.8°	4.85	2.77	5.54	2.43
38.9°	4.86	2.78	5.56	2.43
39.0°	4.88	2.79	5.57	2.44
39.1°	4.89	2.79	5.59	2.44
39.2°	4.90	2.80	5.60	2.45
39.3°	4.91	2.81	5.61	2.46
39.4°	4.93	2.81	5.63	2.46
39.5°	4.94	2.82	5.64	2.47
39.6°	4.95	2.83	5.66	2.48
39.7°	4.96	2.84	5.67	2.48
39.8°	4.98	2.84	5.69	2.49
39.9°	4.99	2.85	5.70	2.49
40.0°	5.00	2.86	5.71	2.50
40.1°	5.01	2.86	5.73	2.51
40.2°	5.03	2.87	5.74	2.51
40.3°	5.04	2.88	5.76	2.52
40.4°	5.05	2.89	5.78	2.53
40.5°	5.06	2.89	5.79	2.53
40.6°	5.08	2.90	5.80	2.54
40.7°	5.09	2.91	5.81	2.54
40.8°	5.10	2.91	5.83	2.55
40.9°	5.11	2.92	5.84	2.56
41.0°	5.13	2.93	5.86	2.56
41.1°	5.14	2.94	5.87	2.57
41.2°	5.15	2.94	5.89	2.58
41.3°	5.16	2.95	5.90	2.58
41.4°	5.18	2.96	5.91	2.59
41.5°	5.19	2.96	5.93	2.59
41.6°	5.20	2.97	5.94	2.60
41.7°	5.21	2.98	5.96	2.61
41.8°	5.23	2.99	5.97	2.61
41.9°	5.24	2.99	5.99	2.62
42.0°	5.25	3.00	6.00	2.63

TABLE II—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED GRAPEFRUIT JUICE

STYLE II. WITH SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 9.5:1	Ratio 13:1	Ratio 8:1	Ratio 13:1
	Acid percent by weight		Acid percent by weight	
	Maximum	*Minimum*	*Maximum*	*Minimum*
38.0°	4.00	2.92	4.75	2.92
38.1°	4.01	2.93	4.76	2.93
38.2°	4.02	2.94	4.78	2.94
38.3°	4.03	2.95	4.79	2.95
38.4°	4.04	2.95	4.80	2.95
38.5°	4.05	2.96	4.81	2.96
38.6°	4.06	2.97	4.83	2.97
38.7	4.07	2.98	4.84	2.98
38.8°	4.08	2.98	4.85	2.98
38.9°	4.09	2.99	4.86	2.99
39.0°	4.11	3.00	4.88	3.00
39.1°	4.12	3.01	4.89	3.01
39.2°	4.13	3.02	4.90	3.02
39.3°	4.14	3.02	4.91	3.02
39.4°	4.15	3.03	4.93	3.03
39.5°	4.16	3.04	4.94	3.04
39.6°	4.17	3.05	4.95	3.05
39.7°	4.18	3.05	4.96	3.05
39.8°	4.19	3.06	4.98	3.06
39.9°	4.20	3.07	4.99	3.07
40.0°	4.21	3.08	5.00	3.08
40.1°	4.22	3.08	5.01	3.08
40.2°	4.23	3.09	5.03	3.09
40.3°	4.24	3.10	5.04	3.10
40.4°	4.25	3.11	5.05	3.11
40.5°	4.26	3.12	5.06	3.12
40.6°	4.27	3.12	5.08	3.12
40.7°	4.28	3.13	5.09	3.13
40.8°	4.29	3.14	5.10	3.14
40.9°	4.31	3.15	5.11	3.15
41.0°	4.32	3.15	5.13	3.15
41.1°	4.33	3.16	5.14	3.16
41.2°	4.34	3.17	5.15	3.17
41.3°	4.35	3.18	5.16	3.18
41.4°	4.36	3.18	5.18	3.18
41.5°	4.37	3.19	5.19	3.19
41.6°	4.38	3.20	5.20	3.20
41.7°	4.39	3.21	5.21	3.21
41.8°	4.40	3.22	5.23	3.22
41.9°	4.41	3.22	5.24	3.22
42.0°	4.42	3.23	5.25	3.23
42.1°	4.43	3.24	5.26	3.24
42.2°	4.44	3.25	5.28	3.25
42.3°	4.45	3.25	5.29	3.25
42.4°	4.46	3.26	5.30	3.26
42.5°	4.47	3.27	5.31	3.27
42.6°	4.48	3.28	5.33	3.28
42.7°	4.49	3.28	5.34	3.28
42.8°	4.51	3.29	5.35	3.29
42.9°	4.52	3.30	5.36	3.30
43.0°	4.53	3.31	5.38	3.31
43.1°	4.54	3.32	5.39	3.32
43.2°	4.55	3.32	5.40	3.32
43.3°	4.56	3.33	5.41	3.33
43.4°	4.57	3.34	5.43	3.34
43.5°	4.58	3.35	5.44	3.35
43.6°	4.59	3.35	5.45	3.35
43.7°	4.60	3.36	5.46	3.36
43.8°	4.61	3.37	5.48	3.37
43.9°	4.62	3.38	5.49	3.38
44.0°	4.63	3.38	5.50	3.38
44.1°	4.64	3.39	5.51	3.39
44.2°	4.65	3.40	5.53	3.40
44.3°	4.66	3.41	5.54	3.41
44.4°	4.67	3.42	5.55	3.42
44.5°	4.68	4.42	5.56	3.42
44.6°	4.69	3.43	5.58	3.43
44.7°	4.71	3.44	5.59	3.44
44.8°	4.72	3.45	5.60	3.45
44.9°	4.73	3.45	5.61	3.45
45.0°	4.74	3.46	5.63	3.46
45.1°	4.75	3.47	5.64	3.47
45.2°	4.76	3.48	5.65	3.48
45.3°	4.77	3.48	5.66	3.48
45.4°	4,78	3.49	5.68	3.49
45.5°	4.79	3.50	5.69	3.50
45.6°	4.80	3.51	4.70	3.51
45.7°	4.81	3.52	5.71	3.52
45.8°	4.82	3.52	5.73	3.52
45.9°	4.83	3.53	5.74	3.53
46.0°	4.84	3.54	5.75	3.54
46.1°	4.85	3.55	5.76	3.55
46.2°	4.86	3.55	5.78	3.55
46.3°	4.87	3.56	5.79	3.56
46.4°	4.88	3.57	5.80	3.57
46.5°	4.89	3.58	5.81	3.58
46.6°	4.91	3.58	5.83	3.58
46.7°	4.92	3.59	5.84	3.59
46.8°	4.93	3.60	5.85	3.60
46.9°	4.94	3.61	5.86	3.61
47.0°	4.95	3.62	5.88	3.62
47.1°	4.96	3.62	5.89	3.62
47.2°	4.97	3.63	5.90	3.63
47.3°	4.98	3.64	5.91	3.64
47.4°	4.99	3.65	5.93	3.65
47.5°	5.00	3.65	5.94	3.65
47.6°	5.01	3.66	5.95	3.66
47.7°	5.02	3.67	5.96	3.67
47.8°	5.03	3.68	5.98	3.68
47.9°	5.04	3.68	5.99	3.68
48.0°	5.05	3.69	6.00	3.69

(d) "Brix value" in frozen concentrated grapefruit juice is the refractometric sucrose value determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions and to which the applicable correction for acid is added. (See Table III for corrections.)

TABLE III—CORRECTIONS FOR OBTAINING BRIX VALUE[1]

Citric acid, anhydrous (percent by weight)	Correction to be added to Refractometer Sucrose Value to obtain degree Brix value	Citric acid, anhydrous (percent by weight)	Correction to be added to Refractometer Sucrose Value to obtain degree Brix value
2.0 percent	0.39	4.2 percent	0.81
2.2 percent	.43	4.4 percent	.85
2.4 percent	.47	4.6 percent	.89
2.6 percent	.51	4.8 percent	.93
2.8 percent	.54	5.0 percent	.97
3.0 percent	.58	5.2 percent	1.01
3.2 percent	.62	5.4 percent	1.04
3.4 percent	.66	5.6 percent	1.07
3.6 percent	.70	5.8 percent	1.11
3.8 percent	.74	6.0 percent	1.15
4.0 percent	.78		

[1] Source: "Refractometric Determination of Soluble Solids in Citrus Juices," by J. W. Stevens and W. E. Baier, from the Analytical Edition of Industrial and Engineering Chemistry, Vol. II, p. 447, Aug. 15, 1939.

§ 52.1231 *Explanation of analyses.* (a) The measurement of Brix value is determined on the thawed concentrate in accordance with the refractometric method for sugars and sugar products, outlined in the Official Methods of Analysis of the Association of Official Agricultural Chemists.

(b) "Acid", calculated as anhydrous citric acid, is determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator.

(c) "Recoverable oil" is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2:[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* Exactly 400 grams of the thawed concentrate mixed with water to approximately two liters are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from the bottom to top, and bring the solution to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute.

(i) By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(ii) The number of milliliters of oil recovered divided by 4 equals the volume of recoverable oil per 100 grams of concentrate.

(d) "Free and suspended pulp" is determined by the following method: Graduated centrifuge tubes with a capacity of 50 ml. are filled with the reconstituted grapefruit juice and placed in a suitable centrifuge. The speed is adjusted, according to diameter, as indicated in Table IV, and the juice is centrifuged for exactly 10 minutes. As used herein, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating position. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE IV

Diameter	Approximate revolutions per minute	Diameter	Approximate revolutions per minute
10 inches	1,609	15½ inches	1,292
10½ inches	1,570	16 inches	1,271
11 inches	1,534	16½ inches	1,252
11½ inches	1,500	17 inches	1,234
12 inches	1,468	17½ inches	1,216
12½ inches	1,438	18 inches	1,199
13 inches	1,410	18½ inches	1,182
13½ inches	1,384	19 inches	1,167
14 inches	1,359	19½ inches	1,152
14½ inches	1,336	20 inches	1,137
15 inches	1,313		

LOT CERTIFICATION TOLERANCES

§ 52.1232 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen concentrated grapefruit juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1233 *Score sheet for frozen concentrated grapefruit juice.*

Size and kind of container	
Container mark or identification	
Label	
Liquid measure (Fl. ounces)	
Brix value of concentrate (corrected for acid)	
Anhydrous citric acid (% by weight)	
Brix value to acid ratio (—:1)	
Recoverable oil (ml./100 grams)	
Free and suspended pulp (%)	
Reconstitutes properly (Yes) (No)	
Appearance of fresh juice (Yes) (No)	

Factors	Score points	
Color	20	(A) 17-20 (B) [1] 14-16 (SStd) [1] 0-13
Absence of defects	40	(A) 34-40 (B) [1] 28-33 (SStd) [1] 0-27
Flavor	40	(A) 34-40 (B) [1] 28-33 (SStd) [1] 0-27
Total score	100	

Grade

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPEFRUIT AND ORANGE FOR SALAD[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1251 *Product description.* Canned grapefruit and orange for salad, commonly known as canned citrus salad, is prepared from sound, mature grapefruit (Citrus paradisi) and from sound, mature oranges of the orange group (Citrus sinensis) which have been properly washed; and the segments thereof have been separated and the major portions of membrane and core and the seeds removed. The product is packed with or without the addition of water, juice, or sweetening ingredients and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers. It is recommended that the number of orange units be not less than the number of grapefruit units.

§ 52.1252 *Grades of canned grapefruit and orange for salad.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned grapefruit and orange for salad of which the average weight of the orange fruit is not less than 37½ percent nor more than 60 percent of the drained weight provided no single container consists of orange fruit that is less than 25 percent nor more than 75 percent of the drained fruit in such container; that possesses a drained weight or average drained weight, as the case may be, of not less than 60 percent of the capacity of the container; that consists of not less than 75 percent by weight of the drained grapefruit and not less than 75 percent by weight of the drained orange fruit which is in whole segments or almost whole segments; that possesses a good color; that is practically free from defects; that possesses a good character; that possesses a good flavor and odor; and that scores not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned grapefruit and orange for salad of which the average weight of the orange fruit is not less than 32½ percent nor more than 60 percent of the drained weight provided no single container consists of orange fruit that is less than 25 percent nor more than 75 percent of the drained weight of the fruit in such container; that possesses a drained weight or average drained weight, as the case may be, of not less than 55 percent of the capacity of the container; that consists of not less than 50 percent by weight of the drained grapefruit and not less than 50 percent by weight of the drained orange fruit which is in whole segments or almost whole segments; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and that scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

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[2] Filed with the Federal Register Division as a part of the original document.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

(c) "U. S. Broken" is the quality of canned grapefruit and orange for salad of which the average weight of the orange fruit is not less than 32½ percent nor more than 60 percent of the drained weight provided no single container consists of orange fruit that is less than 25 percent nor more than 75 percent of the drained weight of the fruit in such container; that possesses a drained weight or average drained weight, as the case may be, of not less than 55 percent of the capacity of the container; that consists of less than 50 percent by weight of the drained grapefruit or less than 50 percent by weight of the drained orange fruit which is in whole or almost whole segments; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of canned grapefruit and orange for salad that fails to meet the requirements of U. S. Grade B or U. S. Choice and U. S. Broken.

LIQUID MEDIA AND FILL OF CONTAINER

§ 52.1253 *Recommended designations of liquid media and Brix measurements.* "Cut-out" requirements for liquid media are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. It is recommended that canned grapefruit and orange for salad have the following indicated "cut-out" Brix measurement for the respective designation, which designations include, but are not limited to, the following:

Designation of liquid media:	*Brix measurement*
Heavy sirup	18° or more.
Light sirup	16° or more, but less than 18°.
Slightly sweet	12° or more, but less than 16°.

§ 52.1254 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned grapefruit and orange for salad be filled with grapefruit and orange fruit as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.1255 *Ascertaining the grade.* (a) The grade of canned grapefruit and orange for salad may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of drained weight, wholeness, color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Drained weight	20
Wholeness	20
Color	20
Absence of defects	20
Character	20
Total score	100

§ 52.1256 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.1257 *Drained weight*—(a) *General.* The drained weight of canned grapefruit and orange for salad is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch, ±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and the fruit less the weight of the dry sieve. The fruit thus drained is referred to in this section as "drained fruit." A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can. "Capacity of the container" means the weight of distilled water at 68° Fahrenheit which the sealed container will hold.

(b) (*A*) *classification.* Canned grapefruit and orange for salad that possesses a drained weight of not less than 60 percent of the capacity of the container may be given a score of 18 to 20 points for the respective containers as outlined in Table No. I. Whenever more than 1 container of the product is being graded, the score for drained weight of each container is determined by averaging the drained weights of the containers. If the average drained weight indicates a score of 18 to 20 points (in accordance with Table No. I) such score will be assigned to each container: *Provided,* That the drained weight of no individual container indicates a score of less than 16 points. However, if any individual container scores less than 16 points, each container will be assigned the score for its own drained weight.

(c) (*B*) *classification.* If the drained weight of the canned grapefruit and orange for salad is less than 60 percent but not less than 55 percent of the capacity of the container, a score of 16 or 17 points may be given for the respective containers as outlined in Table No. I. Whenever more than 1 container of the product is being graded, the score for drained weight of each container is determined by averaging the drained weights of the containers. If the average drained weight indicates a score of 16 or 17 points (in accordance with Table No. I) such score will be assigned to each container: *Provided,* That the drained weight of no individual container indicates a score of less than 14 points. However, if any individual container scores less than 14 points, each container will be assigned the score for its own drained weight. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

TABLE NO. I—SCORE FOR DRAINED WEIGHTS OF CANNED GRAPEFRUIT AND ORANGE FOR SALAD

Grade Classification	Score Points	Percentage that drained weight is of capacity of container	Drained weight on basis of container designation and size			
			8 oz. tall ($2\frac{11}{16}$ x $3\frac{4}{16}$ inches)	No. 2 ($3\frac{7}{16}$ x $4\frac{9}{16}$ inches)	No. 3 Cyl. ($4\frac{4}{16}$ x 7 inches)	No. 5 ($5\frac{2}{16}$ x $5\frac{10}{16}$ inches)
			Ounces	*Ounces*	*Ounces*	*Ounces*
U. S. Grade A or U. S. Fancy.	20	65 percent or more.	5.63 or more	13.33 or more	33.56 or more	38.42 or more.
	19	62½ to 65 percent.	5.41 to 5.62 incl.	12.84 to 13.32 incl.	32.27 to 33.55 incl.	36.94 to 38.41 incl.
	18	60 to 62½ percent.	5.19 to 5.40 incl.	12.33 to 12.83 incl.	30.98 to 32.26 incl.	35.46 to 36.93 incl.
U. S. Grade B or U. S. Choice or U. S. Broken.	17	57½ to 60 percent.	4.98 to 5.18 incl.	11.79 to 12.32 incl.	29.69 to 30.97 incl.	33.99 to 35.45 incl.
	16	55 to 57½ percent.	4.76 to 4.97 incl.	11.28 to 11.78 incl.	28.40 to 29.68 incl.	32.51 to 33.98 incl.
U. S. Grade D or Substandard.	15	52½ to 55 percent.	4.55 to 4.75 incl.	10.77 to 11.27 incl.	27.10 to 28.39 incl.	31.03 to 32.50 incl.
	14	50 to 52½ percent.	4.33 to 4.54 incl.	10.25 to 10.76 incl.	25.81 to 27.09 incl.	29.55 to 31.02 incl.
	13 or less	Less than 50 percent.	Less than foregoing drained weights			

(d) (*SStd*) *classification.* Canned grapefruit and orange for salad that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1258 *Wholeness*—(a) *General.* (1) "Whole" or "whole segment" means any fruit segment that retains its apparent original conformation and is not excessively trimmed.

(2) "Almost whole" or "almost whole-segment" means any portion of a fruit segment that is not less than 75 percent of the apparent original segment size.

(3) "Broken" or "broken segment" means (i) any portion of a fruit segment that is less than 75 percent of the apparent original segment size, (ii) a "whole segment" or "almost whole seg-

ment" that is excessively trimmed, and (iii) portions of segments that are joined together only by a "thread" or membrane.

(b) *(A) classification.* Canned grapefruit and orange for salad that consists of not less than 75 percent by weight of the drained grapefruit and not less than 75 percent by weight of drained orange fruit that is in whole segments or almost whole segments may be given a score of 18 to 20 points.

(c) *(B) classification.* If the canned grapefruit and orange for salad consists of not less than 50 percent by weight of the drained grapefruit and not less than 50 percent by weight of the drained orange fruit that is in whole segments or almost whole segments, a score of 16 or 17 points may be given. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(d) *(Broken) classification.* If less than 50 percent by weight of the drained grapefruit or less than 50 percent by weight of the drained orange fruit is in whole segments or almost whole segments, a score of 0 to 15 points may be given. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Broken, regardless of the total score for the product (this is a limiting rule).

§ 52.1259 *Color*—(a) *(A) classification.* Canned grapefruit and orange for salad that possesses a good color may be given a score of 18 to 20 points. "Good color" means that the color (1) of the grapefruit is a practically uniform bright, typical color free from any noticable tinge of amber and (2) of the orange fruit is a bright, typical color which may range from deep yellow-orange to orange and which is practically uniform with not more than a slight variation in the units.

(b) *(B) classification.* If the canned grapefruit and orange for salad possesses a reasonably good color, a score of 16 or 17 points may be given. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product. (This is a limiting rule.) "Reasonably good color" means that the color of the grapefruit and of the orange fruit is fairly bright, may be variable in color, but is not off color.

(c) *(SStd) classification.* Canned grapefruit and orange for salad that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 15 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1260 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, from seeds, from portions of albedo, from portions of tough membrane, and from damaged units.

(1) "Harmless extraneous material" means leaves, portions of leaves, small pieces of peel, and other similar material that is harmless.

(2) "Seed" means any seed or any portion thereof, whether or not fully developed, that measures more than 3/16 inch in any dimension. A "large seed" is one that may be plump and measures more than 3/8 inch in any dimension.

(3) "Damaged unit" means any fruit segment or portion thereof that is damaged by pathological injury, by lye peeling, by discoloration, or by similar injury or that is damaged to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) *(A) classification.* Canned grapefruit and orange for salad that is practically free from defects may be given a score of 18 to 20 points. "Practically free from defects" means that no harmless extraneous material is present; that not more than 5 percent by weight of the drained fruit may be damaged units; and that for each 20 ounces of net weight there may be present:

(1) Not more than 4 seeds including not more than one large seed; and

(2) Not more than an aggregate area of 2 square inches on the units covered by tough membrane or albedo.

(c) *(B) classification.* If the canned grapefruit and orange for salad is reasonably free from defects, a score of 16 or 17 points may be given. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that not more than 15 percent by weight of the drained fruit may be damaged units; and that for each 20 ounces of net weight there may be present:

(1) Not more than 1 small piece of harmless extraneous material;

(2) Not more than 12 seeds including not more than 3 large seeds; and

(3) Not more than an aggregate area of 3 square inches on the units covered by tough membrane or albedo.

(d) *(SStd) classification.* Canned grapefruit and orange for salad that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1261 *Character*—(a) *General* The factor of character refers to the structure and condition of the cells of the fruit and reflects the maturity of the grapefruit and orange fruit.

(b) *(A) classification.* Canned grapefruit and orange for salad that possesses a good character may be given a score of 18 to 20 points. "Good character" means that the grapefruit and orange fruit is moderately firm and fleshy; that the segments or portions thereof possess a juicy, cellular structure free from dry cells or "ricey" cells that materially affect the appearance or eating quality of the product; and that the product is reasonably free from loose floating cells.

(c) *(B) classification.* If the canned grapefruit and orange for salad possesses a reasonably good character, a score of 16 or 17 points may be given. Canned grapefruit and orange for salad that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the fruit is reasonably free from dry cells, "ricey" cells, or fibrous cells that materially affect the appearance or eating quality of the product but none of the fruit is seriously affected by dry cells, "ricey" cells, or fibrous cells.

(d) *(SStd) classification.* Canned grapefruit and orange for salad that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 15 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS

§ 52.1262 *Explanation of terms.* (a) "Good flavor and odor" means that the product has a distinct and normal flavor and odor typical of canned grapefruit and of canned orange fruit and is free from objectionable odors and objectionable flavors of any kind.

(b) "Fairly good flavor and odor" means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(c) "Brix" means the degrees Brix of the liquid media surrounding the canned grapefruit and orange fruit for salad when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If the liquid media is tested at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of the liquid media may be determined by any other method which gives equivalent results.

LOT CERTIFICATION TOLERANCES

§ 52.1263 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned grapefruit and orange fruit for salad, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1264 *Score sheet for canned grapefruit and orange for salad.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight (ounces)	------
Brix measurement	------
Sirup designation (heavy, light, etc.)	------
Orange fruit:	
Drained weight (ounces)	------
Proportion (percent)	------
Count:	
Orange units	------
Grapefruit units	------

Factors	Score points	
Drained weight	20	(A) 18-20 (B), (Bkn).[1] 16-17 (D) [1] 0-15
Wholeness	20	(A) 18-20 (B) [1] 16-17 Bkn) [1] 0-15
Color	20	(A) 18-20 (B), (Bkn). [1] 16-17 (D) [1] 0-15
Absence of defects	20	(A) 18-20 (B), (Bkn). [1] 16-17 (D) [1] 0-15
Character	20	(A) 18-20 (B), (Bkn). [1] 16-17 (D) [1] 0-15
Total score	100	

Flavor and odor	------
Grade	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1281 *Product description.* Canned blended grapefruit juice and orange juice is the product prepared from a combination of undiluted, unconcentrated, unfermented juices obtained from the mature fresh fruit of the grapefruit tree (Citrus paradisi) and the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines, which fruit has been properly washed; is packed with or without the addition of sweetening ingredients; is sufficiently processed by heat to assure preservation of the product; and is packed in containers which are hermetically sealed. It is recommended that canned blended grapefruit juice and orange juice be composed of not less than 50 percent orange juice; however, in oranges yielding light-colored juice it is further recommended that as much as 75 percent orange juice be used.

§ 52.1282 *Grades of canned blended grapefruit juice and orange juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned blended grapefruit juice and orange juice that shows no coagulation; possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned blended grapefruit juice and orange juice that may show slight coagulation; possesses a good color; is fairly free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned blended grapefruit juice and orange juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.1283 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that the container be filled as full as practicable with blended grapefruit juice and orange juice and that the product occupy not less than 90 percent of the total capacity of the container.

FACTORS OF QUALITY

§ 52.1284 *Ascertaining the grade.* (a) The grade of canned blended grapefruit juice and orange juice may be ascertained by considering, in addition to the foregoing requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1285 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1286 *Color*—(a) *(A) classification.* Canned blended grapefruit juice and orange juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the blended juice possesses a light yellow-orange color that is bright and typical of freshly extracted juice and is free from browning due to scorching, oxidation, caramelization, or other causes.

(b) *(C) classification.* If the canned blended grapefruit juice and orange juice possesses a good color, a score of 14 to 16 points may be given. Canned blended juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means that the blended juice possesses a fairly typical color that may range from light yellow to light amber, may be dull or show evidence of slight browning, but is not off color.

(c) *(SStd) classification.* Canned blended grapefruit juice and orange juice that for any reason fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1287 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from free and suspended pulp, recoverable oil, seeds and seed particles, or other defects.

(1) "Free and suspended pulp" means particles of membrane, core, skin, and other similar extraneous material in the canned blended juice.

(b) *(A) classification.* Canned blended grapefruit juice and orange juice that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the juice may contain not more than 12 percent free and suspended pulp and that there may be present not more than 0.030 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that more than slightly affect the appearance of the product.

(c) *(C) classification.* If the canned blended grapefruit juice and orange juice is fairly free from defects, a score of 28 to 33 points may be given. Canned blended juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the juice may contain not more than 18 percent free and suspended pulp and that there may be present not more than 0.050 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that materially affect the appearance of the product.

(d) *(SStd) classification.* If the canned blended grapefruit juice and orange juice fails to meet the requirements of paragraph (c) of this section, a score of 0 to 27 points may be given. Canned blended juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1288 *Flavor*—(a) *(A) classification.* (1) Canned blended grapefruit juice and orange juice that possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means a fine, distinct canned blended grapefruit juice and orange juice flavor which is free from off flavors of any kind and meets the following requirements:

(i) Brix—Not less than 10.0 degrees.

(ii) Acid—Not less than 0.80 gram nor more than 1.70 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 8 to 1 nor more than 17 to 1.

(2) Canned blended grapefruit juice and orange juice is considered "sweet" if the juice possesses a very good flavor

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.80 gram nor more than 1.70 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 10 to 1 nor more than 17 to 1, provided, that when the Brix of the juice is 16 degrees or more, the Brix-acid ratio may be less than 10 to 1.

(b) (*C*) *classification.* (1) If the canned blended grapefruit juice and orange juice posesses a good flavor, a score of 28 to 33 points may be given. Canned blended juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total sore for the product (this is a limiting rule). "Good flavor" means a good, normal canned blended grapefruit juice and orange juice flavor which is free from off flavors of any kind and meets the following requirements:

(i) Brix—Not less than 9.5 degrees.

(ii) Acid—Not less than 0.65 grams nor more than 1.80 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 7.5 to 1.

(2) Canned blended grapefruit juice and orange juice is considered "sweet" if the juice possesses a good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.65 gram nor more than 1.80 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 10 to 1, provided, that when the Brix of the juice is 16 degrees or more, the Brix-acid ratio may be less than 10 to 1.

(c) (*SStd*) *classification.* Canned blended grapefruit juice and orange juice that fails to meet the requirements of paragraph (b) of this section, is off flavor, or is unpalatable for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1289 *Definitions of terms.* (a) "Brix" means the degrees Brix of canned blended grapefruit juice and orange juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned blended juice may be determined by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as anhydrous citric acid) per 100 ml. of juice in canned blended grapefruit juice and orange juice determined by titration with standard sodium hydroxide solution using phenolphthalein indicator.

§ 52.1290 *Explanation of analyses.* (a) Free and suspended pulp is determined by the following method:

(1) Graduated centrifuge tubes with a capacity of 50 ml. are filled with juice and placed in a suitable centrifuge. The speed is adjusted, according to diameter, as indicated in Table No. I, and the juice is centrifuged for exactly 10 minutes. As used in this section, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating position. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE NO. I

Diameter	Approximate revolutions per minute	Diameter	Approximate revolutions per minute
10 inches	1,609	15½ inches	1,292
10½ inches	1,570	16 inches	1,271
11 inches	1,534	16½ inches	1,252
11½ inches	1,500	17 inches	1,234
12 inches	1,468	17½ inches	1,216
12½ inches	1,438	18 inches	1,199
13 inches	1,410	18½ inches	1,182
13½ inches	1,384	19 inches	1,167
14 inches	1,359	19½ inches	1,152
14½ inches	1,336	20 inches	1,137
15 inches	1,313		

(b) Recoverable oil in canned blended grapefruit juice and orange juice is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2.[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* Exactly 2 liters of juice are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from bottom to top, and bring the juice to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute. By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(i) The number of milliliters of oil recovered divided by 20 equals the percent by volume of recoverable oil.

LOT CERTIFICATION TOLERANCES

§ 52.1291 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned blended grapefruit juice and orange juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1292 *Score sheet for canned blended grapefruit juice and orange juice.*

Size and kind of container	
Container mark or identification	
Label	
Liquid measure (fl. ounces)	
Vacuum (in inches)	
Brix (degrees)	
Acid (anhydrous citric: grams/100 ml.)	
Brix-acid ratio	
Pulp (free and suspended) percent	
Recoverable oil (percent by volume)	

Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1] 14-16	
		(D)	[1] 0-13	
Absence of defects	40	(A)	34-40	
		(C)	[1] 28-33	
		(D)	[1] 0-27	
Flavor	40	(A)	34-40	
		(C)	[1] 28-33	
		(D)	[1] 0-27	
Total score	100			
Grade				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1311 *Product description.* Frozen concentrated blended grapefruit juice and orange juice is the frozen product prepared from a combination of concentrated, unfermented juices obtained from sound, mature grapefruit (Citrus paradisi) and from sound, mature fruit of the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines. The fruit is prepared by sorting and by washing prior to extraction of the juices to assure a clean product. The juices may be blended upon extraction of such juices or after concentration and fresh orange juice extracted from sorted and washed fruit, as aforesaid, is admixed to the concentrate. It is recommended that the frozen concentrated blended grapefruit juice and orange juice be composed of the equivalent of not less than 50 percent orange juice in the reconstituted juice; however, in oranges yielding light-colored juice it is further recommended that as much as the equivalent of 75 percent orange juice in the reconstituted juice be used. The concentrated juice is packed in accordance with good commercial practice and is frozen and maintained at temperatures necessary for the preservation of the product.

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[2] Filed with the Federal Register Division as part of the original document.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.1312 *Styles of frozen concentrated blended grapefruit juice and orange juice*—(a) *Style I, without sweetening ingredient added.* The Brix value of the finished concentrate shall be not less than 40 degrees nor more than 44 degrees.

(b) *Style II, with sweetening ingredient added.* The finished concentrate, exclusive of added sweetening ingredient, has a Brix value of not less than 38 degrees; and the finished concentrate, including added sweetening ingredient, shall have a Brix value of not less than 40 degrees but not more than 48 degrees.

§ 52.1313 *Grades of frozen concentrated blended grapefruit juice and orange juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen concentrated blended grapefruit juice and orange juice which reconstitutes properly and of which the reconstituted juice possesses the appearance of fresh juices of such a blend; possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen concentrated blended grapefruit juice and orange juice which reconstitutes properly and of which the reconstituted juice possesses a good color; is reasonably free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen concentrated blended grapefruit juice and orange juice that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1314 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled with frozen concentrated blended grapefruit juice and orange juice as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.1315 *Ascertaining the grade.* (a) The grade of frozen concentrated blended grapefruit juice and orange juice is ascertained by considering in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1316 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1317 *Color*—(a) *(A) classification.* Frozen concentrated blended grapefruit juice and orange juice of which the reconstituted juice possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the color is bright, light yellow-orange, and typical of freshly extracted juices of such a blend and is free from any trace of browning indicative of scorching, oxidation, caramelization, or other causes.

(b) *(B) classification.* If the reconstituted juice possesses a "good color," a score of 14 to 16 points may be given. Frozen concentrated blended grapefruit juice and orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good color" means that the color may range from light yellow to light amber, is fairly typical of freshly extracted juices of such a blend and may be slightly dull or may show traces of browning but is not off color for any reason.

(c) *(SStd) classification.* If the reconstituted juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 13 points may be given. Frozen concentrated blended grapefruit juice and orange juice that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1318 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds and portions thereof, from excessive juice cells, from free and suspended pulp, from recoverable oil, and from other defects.

(1) "Free and suspended pulp" means particles of membrane, core, and peel and other similar extraneous materials in the reconstituted blended grapefruit juice and orange juice

(b) *(A) classification.* Frozen concentrated blended grapefruit juice and orange juice of which the reconstituted juice is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not materially affect the appearance or drinking quality of the juice; (2) juice cells that do not materially affect the appearance or drinking quality of the juice; (3) other defects that are not more than slightly objectionable, and (4) not more than 12 percent free and suspended pulp. To score in this classification the frozen concentrated blended grapefruit juice and orange juice may contain not more than 0.080 milliliter of recoverable oil per 100 grams of the concentrated product.

(c) *(B) classification.* If the reconstituted juice is reasonably free from defects, a score of 28 to 33 points may be given. Frozen concentrated blended grapefruit juice and orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not seriously affect the appearance or drinking quality of the juice; (2) juice cells that do not seriously affect the appearance or drinking quality of the juice; (3) other defects that are not materially objectionable, and (4) not more than 18 percent free and suspended pulp. To score in this classification the frozen concentrated blended grapefruit juice and orange juice may contain not more than 0.096 milliliter of recoverable oil per 100 grams of the concentrated product.

(d) *(SStd) classification.* Frozen concentrated blended grapefruit juice and orange juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1319 *Flavor*—(a) *(A) classification.* Frozen concentrated blended grapefruit juice and orange juice of which the reconstituted juice possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means that the flavor is fine, distinct, and substantially typical of freshly extracted juices of such a blend. To score not less than 34 points frozen concentrated blended grapefruit juice and orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 10 to 1 nor more than 16 to 1 (See Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 11 to 1 nor more than 13 to 1 (See Table II).

(b) *(B) classification.* If the reconstituted juice possesses a good flavor, a score of 28 to 33 points may be given. Frozen concentrated blended grapefruit juice and orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good flavor" means that the flavor is fairly typical of freshly extracted juices of such a blend and is free from abnormal or off flavors of any kind. To score not less than 28 points frozen concentrated blended grapefruit juice and orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to

acid is not less than 8 to 1 nor more than 18 to 1 (See Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 9 to 1 nor more than 13 to 1 (See Table II).

(c) *(SStd) classification.* If the frozen concentrated blended grapefruit juice and orange juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Frozen concentrated blended grapefruit juice and orange juice that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

TABLE I—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE

STYLE I. WITHOUT SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 10:1	Ratio 16:1	Ratio 8:1	Ratio 18:1
	Acid percent by weight		Acid percent by weight	
	Maximum	Minimum	Maximum	Minimum
40.0°	4.00	2.50	5.00	2.22
40.1°	4.01	2.51	5.01	2.23
40.2°	4.02	2.51	5.03	2.23
40.3°	4.03	2.52	5.04	2.24
40.4°	4.04	2.53	5.05	2.24
40.5°	4.05	2.53	5.06	2.25
40.6°	4.06	2.54	5.08	2.26
40.7°	4.07	2.54	5.09	2.26
40.8°	4.08	2.55	5.10	2.27
40.9°	4.09	2.56	5.11	2.27
41.0°	4.10	2.56	5.13	2.28
41.1°	4.11	2.57	5.14	2.28
41.2°	4.12	2.58	5.15	2.29
41.3°	4.13	2.58	5.16	2.29
41.4°	4.14	2.59	5.18	2.30
41.5°	4.15	2.59	5.19	2.31
41.6°	4.16	2.60	5.20	2.31
41.7°	4.17	2.61	5.21	2.32
41.8°	4.18	2.61	5.23	2.32
41.9°	4.19	2.62	5.24	2.33
42.0°	4.20	2.63	5.25	2.33
42.1°	4.21	2.63	5.26	2.34
42.2°	4.22	2.64	5.28	2.34
42.3°	4.23	2.64	5.29	2.35
42.4°	4.24	2.65	5.30	2.35
42.5°	4.25	2.66	5.31	2.36
42.6°	4.26	2.66	5.33	2.37
42.7°	4.27	2.67	5.34	2.37
42.8°	4.28	2.68	5.35	2.38
42.9°	4.29	2.68	5.36	2.38
43.0°	4.30	2.69	5.38	2.39
43.1°	4.31	2.69	5.39	2.39
43.2°	4.32	2.70	5.40	2.40
43.3°	4.33	2.71	5.41	2.41
43.4°	4.34	2.71	5.43	2.41
43.5°	4.35	2.72	5.44	2.42
43.6°	4.36	2.73	5.45	2.42
43.7°	4.37	2.73	5.46	2.43
43.8°	4.38	2.74	5.48	2.43
43.9°	4.39	2.74	5.49	2.44
44.0°	4.40	2.75	5.50	2.44

TABLE II—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED BLENDED GRAPEFRUIT JUICE AND ORANGE JUICE

STYLE II. WITH SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 11:1	Ratio 13:1	Ratio 9:1	Ratio 13:1
	Acid percent by weight		Acid percent by weight	
	Maximum	Minimum	Maximum	Minimum
40.0°	3.64	3.08	4.44	3.08
40.1°	3.65	3.08	4.46	3.08
40.2°	3.65	3.09	4.47	3.09
40.3°	3.66	3.10	4.48	3.10
40.4°	3.67	3.11	4.49	3.11
40.5°	3.68	3.12	4.50	3.12
40.6°	3.69	3.12	4.51	3.12
40.7°	3.70	3.13	4.52	3.13
40.8°	3.71	3.14	4.53	3.14
40.9°	3.72	3.15	4.54	3.15
41.0°	3.73	3.15	4.56	3.15
41.1°	3.74	3.16	4.57	3.16
41.2°	3.75	3.17	4.58	3.17
41.3°	3.75	3.18	4.59	3.18
41.4°	3.76	3.18	4.60	3.18
41.5°	3.77	3.19	4.61	3.19
41.6°	3.78	3.20	4.62	3.20
41.7°	3.79	3.21	4.63	3.21
41.8°	3.80	3.22	4.64	3.22
41.9°	3.81	3.22	4.66	3.22
42.0°	3.82	3.23	4.67	3.23
42.1°	3.83	3.24	4.68	3.24
42.2°	3.84	3.25	4.69	3.25
42.3°	3.85	3.25	4.70	3.25
42.4°	3.85	3.26	4.71	3.26
42.5°	3.86	3.27	4.72	3.27
42.6°	3.87	3.28	4.73	3.28
42.7°	3.88	3.28	4.74	3.28
42.8°	3.89	3.29	4.76	3.29
42.9°	3.90	3.30	4.77	3.30
43.0°	3.91	3.31	4.78	3.31
43.1°	3.92	3.32	4.79	3.32
43.2°	3.93	3.32	4.80	3.32
43.3°	3.94	3.33	4.81	3.33
43.4°	3.95	3.34	4.82	3.34
43.5°	3.95	3.35	4.83	3.35
43.6°	3.96	3.35	4.84	3.35
43.7°	3.97	3.36	4.86	3.36
43.8°	3.98	3.37	4.87	3.37
43.9°	3.99	3.38	4.88	3.38
44.0°	4.00	3.38	4.89	3.38
44.1°	4.01	3.39	4.90	3.39
44.2°	4.02	3.40	4.91	3.40
44.3°	4.03	3.41	4.92	3.41
44.4°	4.04	3.42	4.93	3.42
44.5°	4.05	3.42	4.94	3.42
44.6°	4.05	3.43	4.96	3.43
44.7°	4.06	3.44	4.97	3.44
44.8°	4.07	3.45	4.98	3.45
44.9°	4.08	3.45	4.99	3.45
45.0°	4.09	3.46	5.00	3.46
45.1°	4.10	3.47	5.01	3.47
45.2°	4.11	3.48	5.02	3.48
45.3°	4.12	3.48	5.03	3.48
45.4°	4.13	3.49	5.04	3.49
45.5°	4.14	3.50	5.06	3.50
45.6°	4.15	3.51	5.07	3.51
45.7°	4.15	3.52	5.08	3.52
45.8°	4.16	3.52	5.09	3.52
45.9°	4.17	3.53	5.10	3.53
46.0°	4.18	3.54	5.11	3.54
46.1°	4.19	3.55	5.12	3.55
46.2°	4.20	3.55	5.13	3.55
46.3°	4.21	3.56	5.14	3.56
46.4°	4.22	3.57	5.16	3.57
46.5°	4.23	3.58	5.17	3.58
46.6°	4.24	3.58	5.18	3.58
46.7°	4.25	3.59	5.19	3.59
46.8°	4.25	3.60	5.20	3.60
46.9°	4.26	3.61	5.21	3.61
47.0°	4.27	3.62	5.22	3.62
47.1°	4.28	3.62	5.23	3.62
47.2°	4.29	3.63	5.24	3.63
47.3°	4.30	3.64	5.26	3.64
47.4°	4.31	3.65	5.27	3.65
47.5°	4.32	3.65	5.28	3.65
47.6°	4.33	3.66	5.29	3.66
47.7°	4.34	3.67	5.30	3.67
47.8°	4.35	3.68	5.31	3.68
47.9°	4.35	3.68	5.32	3.68
48.0°	4.36	3.69	5.33	3.69

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1320 *Definitions of terms as used in these standards.* (a) "Oranges" means oranges of the sweet orange group (Citrus sinensis) and the Mandarin group (Citrus reticulata), except tangerines.

(b) "Reconstituted juice" means the product obtained by mixing thoroughly 3 parts by volume of distilled water and one part by volume of frozen concentrated blended grapefruit juice and orange juice.

(c) "Reconstitutes properly" means that the reconstituted juice shows no material separation of colloidal or suspended matter, leaving a zone of definitely clear liquid without any turbidity, after standing four (4) hours at a temperature of not less than 68 degrees Fahrenheit in a clear glass tube or cylinder (such as a 50 ml. graduated cylinder).

(d) "Acid" means the percent by weight of acid (calculated as anhydrous citric acid) in frozen concentrated blended grapefruit juice and orange juice.

(e) "Brix value" in frozen concentrated blended grapefruit juice and orange juice is the refractometric sucrose value determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions and to which the applicable correction for acid is added. (See Table III for corrections.)

TABLE III[1]—CORRECTIONS FOR OBTAINING BRIX VALUE

Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value	Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value
2.0	0.39	4.0	0.78
2.2	.43	4.2	.81
2.4	.47	4.4	.85
2.6	.51	4.6	.89
2.8	.54	4.8	.93
3.0	.58	5.0	.97
3.2	.62	5.2	1.01
3.4	.66	5.4	1.04
3.6	.70	5.6	1.07
3.8	.74		

[1] Source: "Refractometric Determination of Soluble Solids in Citrus Juices," by J. W. Stevens and W. E. Baier, from the Analytical Edition of Industrial and Engineering Chemistry, Vol. II, Page 447, Aug. 15, 1939.

§ 52.1321 *Explanation of analyses.* (a) The measurement of Brix value is determined on the thawed concentrate in accordance with the refractometric method for sugars and sugar products, outlined in the Official Methods of Analysis of the Association of Official Agricultural Chemists.

(b) "Acid," calculated as anhydrous citric acid, is determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator.

(c) "Recoverable oil" is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2.[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* (i) Exactly 400 grams of the thawed concentrate mixed with water to approximately two liters are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from the bottom to top, and

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[2] Filed with the Federal Register Division as a part of the original document.

bring the solution to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute.

(ii) By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(iii) The number of milliliters of oil recovered divided by 4 equals the volume of recoverable oil per 100 grams of concentrate.

(d) "Free and suspended pulp" is determined by the following method: Graduated centrifuge tubes with a capacity of 50 ml. are filled with the reconstituted blended grapefruit juice and orange juice and placed in a suitable centrifuge. The speed is adjusted, according to diameter, as indicated in Table IV, and the juice is centrifuged for exactly 10 minutes. As used herein, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating position. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE IV

Diameter	Approximate revolutions per minute	Diameter	Approximate revolutions per minute
10 inches	1,609	15½ inches	1,292
10½ inches	1,570	16 inches	1,271
11 inches	1,534	16½ inches	1,252
11½ inches	1,500	17 inches	1,234
12 inches	1,468	17½ inches	1,216
12½ inches	1,438	18 inches	1,199
13 inches	1,410	18½ inches	1,182
13½ inches	1,384	19 inches	1,167
14 inches	1,359	19½ inches	1,152
14½ inches	1,336	20 inches	1,137
15 inches	1,313		

LOT CERTIFICATION TOLERANCES

§ 52.1322 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen concentrated blended grapefruit juice and orange juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1323 *Score sheet for frozen concentrated blended grapefruit juice and orange juice.*

Size and kind of container	
Container mark or identification	
Label	
Liquid measure (Fl. ounces)	
Brix value of concentrate (corrected for acid)	
Anhydrous citric acid (% by weight)	
Brix value to acid ratio (—:1)	
Recoverable oil (ml./100 grams)	
Free and suspended pulp (%)	
Reconstitutes properly (Yes) (No)	
Appearance of fresh juice (Yes) (No)	

Factors	Score points		
Color	20	(A) 17–20 (B) [1] 14–16 (SStd) [1] 0–13	
Absence of defects	40	(A) 34–40 (B) [1] 28–33 (SStd) [1] 0–27	
Flavor	40	(A) 34–40 (B) [1] 28–33 (SStd) [1] 0–27	
Total score	100		
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED GRAPE JUICE[1]

PRODUCT DESCRIPTION, TYPES, STYLES, GRADES

§ 52.1341 *Product description.* Canned grape juice is the unfermented liquid obtained from properly matured fresh grapes. Such grape juice is prepared without concentration, without dilution, is packed with or without the addition of sweetening ingredients, and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers (either metal or glass).

§ 52.1342 *Types of canned grape juice.* (a) Type I: Concord type (prepared from grapes of the slip-skin varieties of the Concord type of the Labrusca species).

(b) Type II: Any type other than Concord type (prepared from a single variety of grapes other than Concord type).

(c) Type III: Blended type (prepared from two or more varieties of grapes).

§ 52.1343 *Styles of canned grape juice.* Unless specifically designated as "sweetened", canned grape juice is considered as "unsweetened."

(a) Style I, Unsweetened (without added sweetening ingredient or ingredients).

(b) Style II, Sweetened (with added sweetening ingredient or ingredients).

§ 52.1344 *Grades of canned grape juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned grape juice from which tartrate crystals have been removed; that possesses a good color; that is practically free from defects; that possesses a good flavor; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned grape juice from which tartrate crystals have been removed, that posesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good flavor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned grape juice that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1345 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with grape juice and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.1346 *Ascertaining the grade.* (a) The grade of canned grape juice is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	40
Absence of defects	20
Flavor	40
Total score	100

§ 52.1347 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1348 *Color*—(a) *(A) classification.* Canned grape juice that possesses a good color may be given a score of 34 to 40 points. "Good color" has the following meanings with respect to the types of canned grape juice:

(1) Type I. A bright purple or bright reddish-purple color typical of properly prepared and properly processed juice from Concord type grapes.

(2) Types II and III. A bright color typical of properly prepared and properly processed juice characteristic of the varietal type or varietal types from which prepared.

(b) *(B) classification.* If the canned grape juice possesses a reasonably good color, a score of 28 to 33 points may be given. Canned grape juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" has the following meanings with respect to the types of canned grape juice:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(1) Type I: A purple or reddish-purple color typical of canned grape juice prepared from Concord type grapes and which color may be slightly dull purple, slightly dull bluish-purple, or slightly dull reddish-purple but which is not off-color for any reason.

(2) Types II and III: A color typical of canned grape juice characteristic of the varietal type or varietal types from which prepared and which color may be slightly dull but which is not off-color for any reason.

(c) (*SStd*) *classification.* Canned grape juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1349 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from sediment and other residue, from tartrate crystals, from particles of skin, from particles of pulp, from particles of seed, and from any other defects.

(b) (*A*) *classification.* Canned grape juice that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that the canned grape juice may possess a slight amount of sediment and residue of an amorphous nature; may possess not more than a trace of sediment and residue of a non-amorphous nature; is practically free from tartrate crystals; and is free from particles of skin, particles of pulp, particles of seed, and from any other defects.

(c) (*B*) *classification.* If the canned grape juice is reasonably free from defects, a score of 14 to 16 points may be given. Canned grape juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the canned grape juice may possess a slight amount of sediment and residue of an amorphous or non-amorphous nature; may possess a slight amount of tartrate crystals; may possess not more than a trace of particles of skin, particles of pulp, particles of seed, and other defects.

(d) (*SStd*) *classification.* Canned grape juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1350 *Flavor*—(a) (*A*) *classification.* Canned grape juice that possesses a good flavor may be given a score of 34 to 40 points. "Good flavor" means that the flavor is a distinct and normal flavor, typical of well-matured grapes and that the canned grape juice is free from any trace of scorching, caramelization, and objectionable flavors and objectionable odors of any kind. To score in this classification, canned grape juice shall meet the following additional requirements:

(1) Brix: Style I, unsweetened—not less than 15.0 degrees.

(2) Brix: Style II, sweetened—not less than 17.0 degrees.

(3) Acid: Not less than 0.60 grams per 100 ml. nor more than 1.20 grams per 100 ml., calculated as tartaric acid.

(4) Brix-acid ratio: For both Style I, unsweetened, and Style II, sweetened, not less than 14 to 1 nor more than 28 to 1.

(b) (*B*) *classification.* If the canned grape juice possesses a reasonably good flavor, a score of 28 to 33 points may be given. Canned grape juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good flavor" means that the flavor is normal and typical of reasonably well-matured grapes and that the canned grape juice may be slightly astringent but is free from any trace of scorching, caramelization, and objectionable flavors and objectionable odors of any kind. To score in this classification, canned grape juice shall meet the following additional requirements:

(1) Brix: Style I, unsweetened—not less than 14.0 degrees.

(2) Brix: Style II, sweetened—not less than 16.0 degrees.

(3) Acid: Not less than 0.45 gram per 100 ml. nor more than 1.40 grams per 100 ml., calculated as tartaric acid.

(4) Brix-acid ratio: For both Style I, unsweetened, and Style II, sweetened, not less than 11.5 to 1.

(c) (*SStd*) *classification.* Canned grape juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS

§ 52.1351 *Explanation of terms.* (a) "Brix" means the degrees Brix of canned grape juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If canned grape juice is tested at a temperature other than 20 degrees C. (68 degrees F.), the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned grape juice may be determined by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as tartaric acid) per 100 ml. of juice in canned grape juice determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator or any other satisfactory indicator.

LOT CERTIFICATION TOLERANCES

§ 52.1352 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned grape juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1353 *Score sheet for canned grape juice.*

Size and kind of container	------
Container mark or identification	------
Label	------
Liquid measure (Fl. ounces)	------
Vacuum (inches)	------
Type	------
Style	------
Brix (degrees)	------
Acid (tartaric: grams/100 ml.)	------
Brix-acid ratio	------

Factors	Score points		
Color	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Absence of defects	20	(A) 17-20 (B) [1] 14-16 (D) [1] 0-13	
Flavor	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Total score	100		
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN LEAFY GREENS [1]

PRODUCT DESCRIPTION, KINDS, STYLES, AND GRADES

§ 52.1371 *Product description.* Frozen leafy greens is the product prepared from the clean, sound, succulent leaves of fresh leafy greens (other than spinach) which may be whole or cut, with or without stems, by sorting, trimming, washing, and blanching, which is then frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.1372 *Kinds of frozen leafy greens.* (a) Beet greens (Beta vulgaris).

(b) Collards (Brassica oleracea, acephala).

(c) Dandelion greens (Taraxacum taraxacum).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) Endive (Cichorium endivia).

(e) Kale (Brassica oleracea, acephala).

(f) Mustard greens (Brassica juncea, brassica chinensis).

(g) Swiss chard (Beta vulgaris, cicla).

(h) Turnip greens (Brassica rapa).

§ 52.1373 *Styles of frozen leafy greens.* (a) "Whole leaf" is the style of frozen leafy greens that consist of the whole leaf or large portions of leaf, with or without adjacent portions of the stem.

(b) "Sliced" is the style of frozen leafy greens that consist of the leaf or large portions of leaf, with or without adjoining portions of the stem, which has been sliced into reasonably uniform strips.

(c) "Cut" or "chopped" is the style of frozen leafy greens that consist of the leaf or large portions of leaf, with or without adjoining portions of the stem, which has been cut into small pieces.

§ 52.1374 *Grades of frozen leafy greens.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen leafy greens that possess a good flavor and odor, that possess a good color, that possess a good character, that are practically free from defects, and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen leafy greens that possess a fairly good flavor and odor, that possess a reasonably good color, that possess a reasonably good character, that are reasonably free from defects, and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen leafy greens that fail to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.1375 *Ascertaining the grade.* (a) The grade of frozen leafy greens is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings of the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The score for the factors of color and absence of defects is determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. A representative sample of the product is cooked for examination with respect to character and flavor and odor.

(d) "Good flavor and odor" means that the product, after cooking, has a good characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor and odor" means that the product after cooking may be lacking in good flavor and odor, but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1376 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1377 *Color*—(a) (*A*) *classification.* Frozen leafy greens that possess a good color may be given a score of 17 to 20 points. "Good color" means that the frozen leafy greens possess a practically uniform bright color characteristic of the variety.

(b) (*B*) *classification.* If the frozen leafy greens possess a reasonably good color, a score of 14 to 16 points may be given. Frozen leafy greens that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen leafy greens possess a reasonably uniform characteristic color which may be variable but not to the extent that the appearance of the frozen product is materially affected.

(c) (*SStd*) *classification* Frozen leafy greens that are definitely off color for any reason, or that fail to meet the requirements of paragraph (b) of this section, may be given a score of 0 to 13 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1378 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, sand or silt, seed stems, roots, grass and weeds, and damage by yellow, brown, or other discoloration.

(1) "Grit, sand or silt" means any particle of earthy material.

(2) "Damage" means damage by any yellow, brown, or other discoloration affecting any leaf, portion of a leaf, stem, or portion of a stem (except minute, insignificant injuries which shall not be considered as damage) to the extent that the appearance or edibility of the unit is materially affected.

(b) (*A*) *classification.* Frozen leafy greens that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that no grit, sand or silt may be present that affects the edibility of the frozen leafy greens; seed stems and roots may be present that do not more than slightly affect the appearance or edibility of the product; and for each 12 ounces of the product there may be present:

(1) Damage affecting leaves and stems or portions of leaves and stems aggregating not more than 4 square inches (4″ x 1″) in area: *Provided,* That the total damaged area or any part thereof does not materially affect the appearance or edibility of the product, and

(2) Grass and weeds aggregating not more than 8 inches in length: *Provided,* That the total amount or any part thereof does not materially affect the appearance or edibility of the product.

(c) (*B*) *classification.* If the frozen leafy greens are reasonably free from defects a score of 28 to 33 points may be given. Frozen leafy greens that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the product may contain a trace of grit, sand or silt that does not materially affect the edibility of the frozen leafy greens; seed stems and roots may be present that do not materially affect the appearance or edibility of the product; and for each 12 ounces of the product there may be present:

(1) Damage affecting leaves and stems aggregating not more than 8 square inches (8″ x 1″) in area: *Provided,* That the total damaged area or any part thereof does not seriously affect the appearance or edibility of the product, and

(2) Grass and weeds aggregating not more than 12 inches in length: *Provided,* That the total amount or any part thereof does not seriously affect the appearance or edibility of the product.

(d) (*SStd*) *classification.* Frozen leafy greens that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1379 *Character*—(a) *General.* The factor of character refers to the tenderness and texture of the leaves and stems or portions of leaves and stems. The degree of freedom from coarse or tough leaves and stems or coarse or tough portions of leaves and stems, and the degree to which the appearance may be affected by ragged and torn leaves and stems or ragged and torn portions of leaves and stems are considered under this factor.

(b) (*A*) *classification.* Frozen leafy greens that possess a good character may be scored 34 to 40 points. "Good character" means that the leafy greens are tender and practically free from coarse or tough leaves and stems or coarse or tough portions of leaves and stems and the appearance of the product is not materially affected by ragged and torn leaves and stems or ragged and torn portions of leaves and stems.

(c) (*B*) *classification.* If the frozen leafy greens possess a reasonably good character a score of 28 to 33 points may be given. Frozen leafy greens that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the leafy greens shall be reasonably tender and that the appearance and eating quality shall not be materially affected by the presence of coarse or tough leaves and stems or coarse or tough portions of leaves and stems.

(d) *(SStd) classification.* Frozen leafy greens that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1380 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen leafy greens, the grade for such lot will be determined by averaging the total score of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1381 *Score sheet for frozen leafy greens.*

Container size			------
Container code or marking			------
Label			------
Net weight (ounces)			------
Kind of greens			------
Style			------
Factors	Score points		
Color	20	(A) 17-20 (B) [1] 14-16 (SStd.) [1] 0-13	
Absence of defects	40	(A) 34-40 (B) [1] 28-33 (SStd.) [1] 0-27	
Character	40	(A) 34-40 (B) [1] 28-33 (SStd.) [1] 0-27	
Total score	100		
Grade			------
Flavor and odor			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF EXTRACTED HONEY; HONEY[1]

PRODUCT DESCRIPTION, TYPES, TYPES OF PROCESS, AND COLOR

§ 52.1391 *Product description.* "Extracted honey" or "honey" is honey that has been separated from the comb by centrifugal force, gravity, straining, or by other means, and is prepared and packed under sanitary conditions in accordance with good commercial practice.

§ 52.1392 *Types of extracted honey.* The type of extracted honey is not incorporated in the grades of the finished product since the type of extracted honey, as such, is dependent upon the method of preparation and processing, and therefore is not a factor of quality for the purpose of these grades. Extracted honey may be prepared and processed as one of the following types:

(a) *Liquid honey.* "Liquid honey" is honey that is free from visible crystals.

(b) *Crystallized honey.* "Crystallized honey" is honey that is solidly granulated or crystallized, irrespective of whether "Candied," "Fondant," "Creamed," or "Spread" types of crystallized honey.

(c) *Partially crystallized honey.* "Partially crystallized honey" is honey that is a mixture of liquid honey and crystallized honey.

§ 52.1393 *Color of honey.* The color of honey is not a factor of quality for the purpose of these grades.

(a) The color classification of honey is determined by means of the U. S. D. A. permanent glass color standards for honey.[2]

(b) The respective color designation, applicable range of each color, and color range on the Pfund scale are shown in Table No. I, together with spectrophotometric specifications for freshly prepared caramel-glycerine solutions which in thickness of 3.15 centimeters (1.24 inch) closely match the colors of the U. S. D. A. permanent glass color standards.

(c) Crystallized honey and partially crystallized honey are liquefied by heating to approximately 54.4° C. (130° F.) and cooled to approximately 20° C. (68° F.) before ascertaining the color of the honey by means of the U. S. D. A. permanent glass color standards for honey.

§ 52.1394 *Application of U. S. D. A. permanent glass color standards in classifying the color of honey*—(a) *Sample containers.* The sample containers for use in making the visual color determination as set forth in § 52.1395 are square bottles of colorless transparent glass, having an internal width at the center of 3.15 centimeters (1.24 inch), with outside base dimensions of approximately 1 7/16 inches by 1 7/16 inches, and having a capacity of approximately 2 ounces.

(b) *Comparator; viewing box.* Two comparators or viewing boxes are required for the entire color range in the visual comparison test. Each comparator is divided into five compartments approximately 1½ inches square, with each compartment provided with openings approximately 1 3/16 inches square in the two parallel sides. The U. S. D. A. permanent glass color standards are mounted in a fixed position in the front openings of compartments 1, 3, and 5 of the two comparators, compartments 2 and 4 being adapted to receive the sample containers.

(c) *Clear blanks.* Six clear blanks of distilled water in capped sample containers are required. The clear blanks are placed in the compartments provided behind each permanent glass color standard.

(d) *Cloudy suspensions.* Three cloudy suspensions of bentonite in distilled water, each in a capped sample container, are required. These are referred to as "Cloudy No. 1," "Cloudy No. 2," and "Cloudy No. 3," corresponding to varying degrees of cloudiness within the range of the different grades of honey. The cloudy suspensions replace the clear blanks when cloudy honey is to be classified for color.

(e) *Visual comparison test.* The color of a sample of honey is compared with the U. S. D. A. permanent glass color standards in the following manner to determine its color classification:

(1) Place the sample of honey in a clean dry sample container.

(2) Place the clear blanks behind each permanent glass color standard.

(3) Place the container filled with the sample of honey successively in compartments 2 and 4 of the comparator, and visually compare the color of the sample with that of each of the glass color standards by looking through them at a diffuse source of natural or artificial daylight. The color is classified in accordance with the color range as given in Table No. I.

TABLE NO. I—COLOR DESIGNATION OF HONEY AND RANGE FOR EACH COLOR

U. S. D. A. color standards	Color range U. S. D. A. color standards	Color range Pfund scales	Optical density [1]
		Millimeters	
Water White	Honey that is Water White or lighter in color than Water White Color Standard.	8 or less	0.0945
Extra White	Honey that is darker than Water White but not darker than Extra White Color Standard.	Over 8 to and including 17.	.189
White	Honey that is darker than Extra White but not darker than White Color Standard.	Over 17 to and including 34.	.378
Extra Light Amber	Honey that is darker than White but not darker than Extra Light Amber or Golden Color Standard.	Over 34 to and including 50.	.595
Light Amber	Honey that is darker than Extra Light Amber but not darker than Light Amber Color Standard.	Over 50 to and including 85.	1.389
Amber	Honey that is darker than Light Amber but not darker than Amber Color Standard.	Over 85 to and including 114.	3.008
Dark Amber	Honey that is darker than Amber Color Standard	Over 114	----------

[1] Optical density (absorbance) = $\log_{10}$ (100/percent transmittance), at 560 mu for 3.15 centimeter thickness for caramel-glycerin solutions measured versus an equal cell containing glycerin.

(4) If the sample is appreciably cloudy in appearance, the clear blanks are replaced by the cloudy suspensions, "Cloudy No. 1," "Cloudy No. 2," or "Cloudy No. 3," respectively, to facilitate color classification.

§ 52.1395 *Tolerance for certification of color of officially drawn samples.*

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] An approximate color classification may be made by means of the Pfund color grader and the color designated in terms of the aforesaid U. S. D. A. color standards.

When certifying the color of samples that have been officially drawn and which represent a specific lot of honey, the lot shall be considered as of one color if not more than one-sixth of the containers comprising the sample contains honey of a different color: *Provided, however,* that the honey in none of the containers falls below the next darker color designation.

FILL OF CONTAINER

§ 52.1396 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled with honey as full as practicable, and with respect to containers of one gallon or less the honey shall occupy not less than 95 percent of the total capacity of the container.

GRADES

§ 52.1397 *Grades of honey.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of honey that contains not less than 81.4 percent soluble solids,[3] possesses a good flavor for the predominant floral source or, when blended, a good flavor for the blend of floral sources, is free from defects, and is of such quality with respect to clarity as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of honey that contains not less than 81.4 percent soluble solids,[3] possesses a reasonably good flavor for the predominant floral source or, when blended, a reasonably good flavor for the blend of floral sources, is reasonably free from defects, is reasonably clear, and scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is honey for reprocessing that contains not less than 80 percent soluble solids,[3] possesses a fairly good flavor for the predominant floral source or, when blended, a fairly good flavor for the blend of floral sources, is fairly free from defects, and is of such quality with respect to clarity as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of honey that fails to meet the requirements of "U. S. Grade C" or "U. S. Standard."

FACTORS OF QUALITY

§ 52.1398 *Ascertaining the grade.* (a) The grade of honey may be ascertained by considering in conjunction with the requirements of the various grades the respective ratings for the factors of flavor, absence of defects, and clarity.

(b) The soluble solids content of honey may be determined by means of the refractometer at 20° C. (68° F.). The refractive indices and corresponding percent soluble solids and equivalent specific gravity and percent of moisture may be ascertained from Table No. II of this section. The soluble solids content of honey and equivalent values may be determined by any other method which gives equivalent results.

(c) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	Points
Flavor	50
Absence of defects	40
Clarity	10
Total score	100

(d) Crystallized honey and partially crystallized honey shall be liquefied by heating to approximately 54.4° C. (130° F.) and cooled to approximately 20° C. (68° F.) before ascertaining the grade of the product.

§ 52.1399 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range for the rating of each factor is inclusive (for example, "27 to 30 points" means 27, 28, 29, or 30 points).

§ 52.1400 *Flavor*—(a) *General.* The factor of flavor refers to the prominence of the honey flavor and aroma and to its conformity to the flavor and aroma of the predominant floral source or blend of floral sources.

(b) (*A*) *classification.* Honey that possesses a good flavor for the predominant floral source may be given a score of 45 to 50 points. "Good flavor for the predominant floral source" means that the product has a good, normal flavor and aroma for the predominant floral source or, when blended, a good flavor for the blend of floral sources and that the honey is free from caramelized flavor or objectionable flavor caused by fermentation, smoke, chemicals or other causes with the exception of the predominant floral source.

(c) (*B*) *classification.* If the honey possesses a reasonably good flavor for the predominant floral source, a score of 40 to 44 points may be given. Honey that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice" regardless of the total score for the product (this is a limiting rule). "Reasonably good flavor for the predominant floral source" means that the product has a reasonably good, normal flavor and aroma for the predominant floral source or, when blended, a reasonably good flavor for the blend of floral sources and that the honey is practically free from caramelized flavor and is free from objectionable flavor caused by fermentation, smoke chemicals or other causes with the exception of the predominant floral source.

(d) (*C*) *classification.* Honey that possesses a fairly good flavor for the predominant floral source may be given a score of 35 to 39 points. Honey that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard" regardless of the total score for the product (this is a limiting rule). "Fairly good flavor for the predominant floral source" means that the product has a fairly good, normal flavor and aroma for the predominant floral source or, when blended, a fairly good flavor for the blend of floral sources and that the honey may possess a slightly caramelized flavor, is free from objectionable flavor caused by fermentation, smoke, chemicals or other causes with the exception of the predominant floral source.

(e) (*SStd*) *classification.* Honey that fails to meet the requirements of paragraph (d) of this section or is off flavor for any reason may be given a score of 0 to 34 points and shall not be graded above "U. S. Grade D" or "Substandard" regardless of the total score for the product (this is a limiting rule).

§ 52.1401 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of cleanliness and to the degree of freedom from particles of comb, propolis, or other defects which may be in suspension or deposited as sediment in the container.

(b) (*A*) classification. Honey that is free from defects may be given a score of 37 to 40 points. "Free from defects" means that the honey contains no defects that affect the appearance or edibility of the product, and shall be at least as free from defects as honey that has been strained through a standard No. 80 sieve, at a temperature of not more than 130° F.

(c) (*B*) *classification.* If the honey is reasonably free from defects a score of 34 to 36 points may be given. Honey that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice" regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the honey may contain defects which do not materially affect the appearance or edibility of the product, and shall be at least as free from defects as honey that has been strained through a standard No. 50 sieve, at a temperature of not more than 130° F.

(d) (*C*) *classification.* Honey that is fairly free from defects may be given a score of 31 to 33 points. Honey that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard" regardless of the total score for the product (this a limiting rule). "Fairly free from defects" means that the honey may contain defects which may be noticeable but shall be at least as free from defects as honey that has been strained through a standard No. 18 sieve, at a temperature of not more than 130° F.

(e) (*SStd*) *classification.* Honey that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 29 points and shall not be graded above "U. S. Grade D" or "Substandard" regardless of the total score for the product (this is a limiting rule).

§ 52.1402 *Clarity*—(a) *General.* The factor of clarity has reference to the degree of freedom from air bubbles, pollen grains, or fine particles of any material which might be suspended in the product.

(b) (*A*) *classification.* Honey that is clear may be given a score of 8 to 10 points. "Clear" means that the honey may contain air bubbles which do not materially affect the appearance of the product and may contain a trace of pollen grains or other finely divided particles of suspended material which does not affect the appearance of the product.

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[3] Percent moisture and other equivalents may be ascertained from Table No. II of this section.

(c) *(B) classification.* If the honey is reasonably clear a score of 6 to 7 points may be given. "Reasonably clear" means that the honey may contain air bubbles, pollen grains, or other finely divided particles of suspended material which does not materially affect the appearance of the product.

(d) *(C) classification.* Honey that is fairly clear may be given a score of 4 to 5 points. Honey that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard" regardless of the total score for the product (this is a limiting rule). "Fairly clear" means that the appearance of the honey may be materially but not seriously affected by the presence of air bubbles, pollen grains, or other finely divided particles of suspended material.

(e) *(SStd) classification.* Honey that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 3 points and shall not be graded above "U. S. Grade C" or "U. S. Standard" regardless of the total score for the product (this is a limiting rule).

TABLE NO. II—REFRACTIVE INDICES AND CORRESPONDING PERCENT SOLUBLE SOLIDS, EQUIVALENT SPECIFIC GRAVITY AND PERCENT MOISTURE IN EXTRACTED HONEY [1]

Refractive index at 20° C.	Soluble solids (percent)	Specific gravity (20°/20° C.) at 20° C.	Moisture (percent)
1.4844	79.0	1.3966	21.0
1.4849	79.2	1.3979	20.8
1.4853	79.4	1.3992	20.6
1.4858	79.6	1.4006	20.4
1.4862	79.8	1.4020	20.2
1.4866	80.0	1.4033	20.0
1.4871	80.2	1.4046	19.8
1.4876	80.4	1.4060	19.6
1.4880	80.6	1.4074	19.4
1.4885	80.8	1.4087	19.2
1.4890	81.0	1.4101	19.0
1.4895	81.2	1.4115	18.8
1.4900	81.4	1.4129	18.6
1.4905	81.6	1.4143	18.4
1.4910	81.8	1.4156	18.2
1.4915	82.0	1.4171	18.0
1.4920	82.2	1.4184	17.8
1.4925	82.4	1.4197	17.6
1.4930	82.6	1.4212	17.4
1.4935	82.8	1.4225	17.2
1.4940	83.0	1.4239	17.0
1.4945	83.2	1.4254	16.8
1.4950	83.4	1.4267	16.6
1.4955	83.6	1.4282	16.4
1.4960	83.8	1.4295	16.2
1.4965	84.0	1.4310	16.0
1.4970	84.2	1.4324	15.8
1.4975	84.4	1.4338	15.6
1.4980	84.6	1.4352	15.4
1.4985	84.8	1.4367	15.2
1.4990	85.0	1.4381	15.0
1.4995	85.2	1.4395	14.8
1.5000	85.4	1.4409	14.6
1.5005	85.6	1.4424	14.4
1.5010	85.8	1.4438	14.2
1.5015	86.0	1.4453	14.0
1.5020	86.2	1.4466	13.8
1.5025	86.4	1.4481	13.6
1.5030	86.6	1.4495	13.4
1.5035	86.8	1.4510	13.2
1.5041	87.0	1.4525	13.0

[1] Temperature corrections: If refractometer reading is made at temperatures above 20° C. (68° F.), add 0.00023 to the refractive index for each degree C., or 0.00013 for each degree F. If made below 20° C. (68° F.), subtract correction. The moisture content of honey and equivalent values may be determined by any other method which gives equivalent results.

LOT CERTIFICATION TOLERANCES

§ 52.1403 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of extracted honey, the grade for such lot will be determined by averaging the total scores of all the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor subject to such limiting rule must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal, Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1404 *Score sheet for extracted honey.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Type (liquid, crystallized or partially crystallized)	------
Soluble solids (percent)	------
Moisture (percent)	------
Specific gravity	------

Factors		Score points	
Flavor	50	(A) 45-50 (B) [1]40-44 (C) [1]35-39 (D) [1]0-34	
Absence of defects	40	(A) 37-40 (B) [1]34-36 (C) [1]30-33 (D) [1]0-29	
Clarity	10	(A) 8-10 (B) 6-7 (C) [1]4-5 (D) [1]0-3	
Total score	100		

Grade	------
Color	------
Floral source or sources	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATE FOR LEMONADE [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1421 *Product description.* Frozen concentrate for lemonade is the product prepared from lemon juice and one or more nutritive sweetening ingredients; it may contain added lemon oil or concentrated lemon oil (or their extracts or emulsions) and may or may not contain water in sufficient quantities to standardize the product. The lemon juice is produced from fresh, sound, ripe, and thoroughly cleansed fruit of one or more of the high acid varieties of the species citrus limon (limonia). Such juice may be fresh or frozen or fresh concentrated or frozen concentrated: *Provided*, That not less than 20 percent, by weight, of the acidity of the product is derived from unconcentrated fresh or frozen lemon juice. The concentrate for lemonade is processed in accordance with good commercial practice and is frozen and maintained at temperatures sufficient for the preservation of the product.

§ 52.1422 *Grades of frozen concentrate for lemonade.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen concentrate for lemonade which mixes readily into a lemonade that possesses an amount of pulp, cloud, and juice sacs so as to substantially reflect the appearance of lemonade prepared from freshly expressed lemon juice; that possesses a good color; that is practically free from defects; that possesses a good flavor; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this section.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen concentrate for lemonade which mixes readily into a lemonade that possesses at least a slight, but not an excessive, amount of pulp, cloud, and juice sacs so as to reasonably reflect the appearance of lemonade prepared from freshly expressed lemon juice; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good flavor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this section.

(c) "Substandard" is the quality of frozen concentrate for lemonade that fails to meet the requirements of "U. S. Grade B" or "U. S. Choice."

FILL OF CONTAINER

§ 52.1423 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled as full as practicable with frozen concentrate for lemonade.

FACTORS OF QUALITY

§ 52.1424 *Ascertaining the grade.* (a) The grade of frozen concentrate for lemonade is ascertained by considering the requirements with respect to the ease with which the product mixes into a lemonade and to the amount of pulp, cloud and juice sacs present in the lemonade, which factors are not scored, and the factors of color, absence of defects, and flavor which are scored.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	20
Flavor	60
Total score	100

(c) The scores for the factors of color, absence of defects, and flavor are determined immediately after the product has been prepared as lemonade by thoroughly mixing the frozen concentrate for lemonade with a specific volume of water as directed by the manufacturer.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal, Food, Drug, and Cosmetic Act.

§ 52.1425 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means, 17, 18, 19, or 20 points).

§ 52.1426 *Color*—(a) *(A) classification.* Frozen concentrate for lemonade which, when prepared as lemonade, possesses a good color may be given a score of 17 to 20 points. "Good color" means a good bright characteristic color that reflects the appearance of lemonade prepared from freshly expressed lemon juice.

(b) *(B) classification.* If the frozen concentrate for lemonade, when prepared as lemonade, possesses a reasonably good color, a score of 14 to 16 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice," regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means a characteristic color that reflects to a reasonable extent the color of lemonade prepared from freshly expressed lemon juice and is not dark or otherwise discolored for any reason.

(c) *(SStd) classification.* If the lemonade fails to meet the requirements of paragraph (b) of this section, a score of 0 to 13 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "Substandard" regardless of the total score for the product (this is a limiting rule).

§ 52.1427 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds or portions of seeds, from harmless extraneous material, from objectionable material and from other defects not specifically mentioned that affect the appearance or drinking quality of the product.

(1) "Harmless extraneous material" includes, but is not limited to, embryonic seeds or particles of seeds that measure not more than 3/16 inch in any dimension, or other similar material which is harmless.

(2) "Seeds or portions of seeds" means any seed or portion thereof, whether or not fully developed, that measures more than 3/16 inch in any dimension.

(b) *(A) classification.* Frozen concentrate for lemonade which, when prepared as lemonade, is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that there may be present not more than an average of 1 seed or portion of seed for each quart of prepared lemonade; and that the appearance and drinking quality of the lemonade is not materially affected by the presence of seeds, portions of seeds, objectionable material, harmless extraneous material, any other defects not specifically mentioned, or any combination thereof.

(c) *(B) classification.* If the lemonade is reasonably free from defects a score of 14 to 16 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice" regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present not more than an average of 2 seeds or portions of seeds for each quart of lemonade; and that the appearance and drinking quality of the lemonade is not seriously affected by the presence of seeds, portions of seeds, objectionable material, harmless extraneous material, any other defects not specifically mentioned, or any combination thereof.

(d) *(SStd) classification.* If the lemonade fails to meet the requirements of paragraph (c) of this section, a score of 0 to 13 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "Substandard" regardless of the total score for the product (this is a limiting rule).

§ 52.1428 *Flavor*—(a) *(A) classification.* Frozen concentrate for lemonade which, when prepared as lemonade, possesses a good flavor, may be given a score of 51 to 60 points. "Good flavor" means a fine, distinct, and substantially typical flavor of lemonade prepared from freshly expressed lemon juice and which flavor is free from terpenic, oxidized, rancid, or other off-flavors. To score in this classification, the lemonade shall test not less than 10.5 degrees Brix; shall contain not less than 0.7 grams of acid per 100 ml of the lemonade; may not contain more than 0.02 ml of recoverable oil per 100 ml of the lemonade; and the Brix-acid ratio shall not exceed 20:1.

(b) *(B) classification.* If the prepared lemonade possesses a reasonably good flavor, a score of 42 to 50 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice" regardless of the total score for the product (this is a limiting rule). "Reasonably good flavor" means a fairly typical flavor of lemonade prepared from freshly expressed lemon juice and which flavor is practically free from terpenic, oxidized, rancid, or other off-flavors and is free from abnormal flavors of any kind. To score in this classification the lemonade shall test not less than 10.5 degrees Brix; shall contain not less than 0.7 gram of acid per 100 ml of the lemonade, may contain not more than 0.03 ml of recoverable oil per 100 ml of the lemonade; and the Brix-acid ratio shall not exceed 20:1.

(c) *(SStd) classification.* If the prepared lemonade fails to meet the requirements of paragraph (b) of this section, a score of 0 to 41 points may be given. Frozen concentrate for lemonade that falls into this classification shall not be graded above "Substandard" regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1429 *Definition of terms.* (a) "Brix" means the degrees Brix of the lemonade when tested with a Brix hydrometer calibrated at 20° C. (68° F.). If used in testing lemonade at a temperature other than 20° C. (68° F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of lemonade may be determined by any other method which gives equivalent results.

(b) "Acid" means the grams of acid (calculated as anhydrous citric acid) per 100 ml of the prepared lemonade determined by titration with standard sodium hydroxide solution using phenolphtalein as an indicator.

(c) "Brix-acid ratio" means the ratio between the degrees "Brix" as determined in this section and the acid in grams per 100 ml of lemonade.

(d) "Dilution factor" is the value obtained by dividing a volume of lemonade by the volume of concentrate for lemonade used in its preparation when such lemonade is prepared in accordance with the manufacturers directions.

§ 52.1430 *Explanation of analyses.* Recoverable oil is determined by the following method:

(a) *Equipment.*

Oil separatory trap similar to either of those illustrated in Figure 1[2] and Figure 2.[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(b) *Procedure.* Place exactly 1 liter of the concentrate for lemonade with approximately 1 liter of water in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from bottom to top, and bring the mixture to a boil. Continue boiling for one hour at the rate of approximately 50 drops per minute. By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered. The number of milliliters of oil recovered divided by 10 times the dilution factor is equivalent to the number of milliliters of oil per 100 milliliters of the lemonade.

LOT CERTIFICATION TOLERANCES

§ 52.1431 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen concentrate for lemonade the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

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[2] Figures 1 and 2 filed as part of the original document.

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1432 *Score sheet for frozen concentrate for lemonade.*

Size and kind of container	----
Container mark or identification	----
Label (including dilution factor)	----
Liquid measure (fluid ounces)	----
Brix of the lemonade	----
Anhydrous citric acid in the lemonade (grams per 100 milliliter)	----
Brix acid ratio	----
Recoverable oil (milliliter/100 milliliter of the lemonade)	----
Reconstitutes properly (yes) (no)	----

Factors	Score points		
Color	20	(A)	17–20
		(B)	[1] 14–16
		(SStd)	[1] 0–13
Absence of defects	20	(A)	17–20
		(B)	[1] 14–16
		(SStd)	[1] 0–13
Flavor	60	(A)	51–60
		(B)	[1] 42–50
		(SStd)	[1] 0–41
Total score	100		

Grade	----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF ORANGE MARMALADE[1]

PRODUCT DESCRIPTION, KINDS, STYLES, TYPES, GRADES

§ 52.1451 *Product description.* Orange marmalade is the semi-solid or gel-like product prepared from orange fruit ingredients together with one or more sweetening ingredients and may contain suitable food acids, food pectins, lemon juice, or lemon peel. The ingredients are concentrated by cooking to such a point that the soluble solids content of the finished marmalade is not less than 68 percent.

§ 52.1452 *Kinds of orange marmalade.* (a) "Sweet orange marmalade" means that the orange fruit ingredient consists principally of such varieties as Navel and Valencia or other commercial dessert varieties other than tangerines. "Sweet orange marmalade" is prepared from not less than 30 parts by weight of orange fruit ingredient to 70 parts by weight of sweetening ingredient.

(b) "Bitter orange marmalade" means that the orange fruit ingredient consists principally of the Seville or sour type of oranges other than tangerines. "Bitter orange marmalade" is prepared from not less than 25 parts by weight of orange fruit ingredient to 75 parts by weight of sweetening ingredient.

(c) "Sweet and bitter orange marmalade" means that the orange fruit ingredient consists of a blend of sweet oranges and bitter oranges other than tangerines. "Sweet and bitter orange marmalade" is prepared from not less than 30 parts by weight of orange fruit ingredient to 70 parts by weight of sweetening ingredient. It is recommended that the orange fruit ingredient from which "Sweet and bitter orange marmalade" is prepared be approximately 50 percent by weight of sweet orange material and bitter orange material.

§ 52.1453 *Styles of orange marmalade.* (a) "Sliced" means that the peel in the orange marmalade is in thin strips.

(b) "Chopped" means that the peel in the orange marmalade is in small pieces (such as irregular shapes and dice-like shapes).

§ 52.1454 *Types of orange marmalade.* (a) "Type I, Clear" means that the peel is suspended in a translucent semi-solid or gel-like mass.

(b) "Type II, Natural" means that the peel is suspended in a cloudy or opaque semi-solid or gel-like mass.

§ 52.1455 *Grades of orange marmalade.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of orange marmalade that is practically free from defects; that possesses a good flavor and odor; and that is of such quality with respect to color and consistency and character as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of orange marmalade that possesses a reasonably good color; that possesses a reasonably good consistency and character; that is reasonably free from defects; that possesses a reasonably good flavor and odor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of orange marmalade that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1456 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with orange marmalade and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.1457 *Ascertaining the grade.* The grade of orange marmalade is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency and character, absence of defects, and flavor and odor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	20
Consistency and character	20
Absence of defects	20
Flavor and odor	40
Total score	100

§ 52.1458 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1459 *Color*—(a) *(A) classification.* Orange marmalade that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the product possesses a practically uniform bright color characteristic of properly prepared and properly processed orange marmalade for the respective kind; that the product is practically free from green-colored peel, and that the product is free from dullness of color due to oxidation or improper processing or improper cooling or other causes.

(b) *(B) classification.* If the orange marmalade possesses a reasonably good color, a score of 14 to 16 points may be given. "Reasonably good color" means that the product possesses a reasonably uniform color; that the product is reasonably free from green-colored peel; that the color of the product may be slightly dull but is not off-color nor excessively dark due to oxidation or improper processing or improper cooling or other causes.

(c) *(SStd) classification.* Orange marmalade that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1460 *Consistency and character*—(a) *General.* The factor of consistency and character refers to the gel strength of the product, the amount and distribution of the peel in the product, the tenderness of the peel, the uniformity of width of slices of peel, and the uniformity of size of small pieces of peel.

(b) *(A) classification.* Orange marmalade that possesses a good consistency and character may be given a score of 17 to 20 points. "Good consistency and character" means that the product is a firm but tender gel and may possess no more than a very slight tendency to flow; that the product contains a substantial, but not excessive, amount of peel; that the peel is evenly distributed; that the peel is tender; that in "sliced" style, the thin strips of peel are predominantly of strips approximating 1/32 inch to 1/16 inch in width; and that in

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

"chopped" style, the small pieces of peel are reasonably uniform in size.

(c) (*B*) *classification.* If the orange marmalade possesses a reasonably good consistency and character, a score of 14 to 16 points may be given. "Reasonably good consistency and character" means that the product may be definitely firm but is not excessively gummy nor excessively rubbery or that the product may be viscous but is not excessively thin; that the peel is fairly evenly distributed; that the peel is reasonably tender; that in "sliced" style, the thin strips of peel are predominantly of strips approximating no more than $\frac{1}{8}$ inch in width; and that in "chopped" style, the small pieces of peel are fairly uniform in size.

(d) (*SStd*) *classification.* Orange marmalade that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1461 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds or portions of seeds, from blemished peel, from objectionable material, from harmless extraneous material, and from any other defects not specifically mentioned that affect the appearance and eating quality of the product.

(1) "Harmless extraneous material" includes, but is not limited to, small particles of leaves, undeveloped seeds or particles of seeds that measure not more than $\frac{3}{16}$ inch in any dimension, or other similar materials that are harmless.

(2) "Seeds or portions of seeds" means any seed or any portion thereof, whether or not fully developed, that measures more than $\frac{3}{16}$ inch in any dimension.

(3) "Blemished peel" means pieces of the peel blemished by surface discoloration to the extent that the appearance or eating quality is materially affected.

(b) (*A*) *classification.* Orange marmalade that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that there may be present on an average for each 16 ounces net weight, not more than 1 seed or portion of seed and not more than 6 pieces of blemished peel; and that in a single container, the appearance and eating quality of the product is not materially affected by the presence of seeds, portions of seeds, blemished peel, objectionable material, harmless extraneous material, any other defects not specifically mentioned, or any combination thereof.

(c) (*B*) *classification.* If the orange marmalade is reasonably free from defects, a score of 14 to 16 points may be given. Orange marmalade that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present on an average for each 16 ounces net weight, not more than a total of 2 seeds or portions of seeds and not more than 10 pieces of blemished peel; and that in a single container, the appearance and eating quality of the product is not seriously affected by the presence of seeds, portions of seeds, blemished peel, objectionable material, harmless extraneous material, any other defects not specifically mentioned, or any combination thereof.

(d) (*SStd*) *classification.* Orange marmalade that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1462 *Flavor and odor*—(a) (*A*) *classification.* Orange marmalade that possesses a good flavor and odor may be given a score of 34 to 40 points. "Good flavor and odor" means that the product possesses a good and distinct flavor and aroma characteristic of properly processed orange marmalade for the respective kind; that the flavor of the product is neither excessively tart nor excessively sweet; and that the product is free from any caramelized flavor and is free from objectionable flavor and objectionable odor of any kind.

(b) (*B*) *classification.* If the orange marmalade possesses a reasonably good flavor and odor, a score of 28 to 33 points may be given. Orange marmalade that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good flavor and odor" means that the product possesses a reasonably good flavor characteristic of the orange marmalade for the respective kind; that the flavor of the product may be excessively tart or excessively sweet or may possess a slightly caramelized flavor but that the product is free from objectionable flavor and objectionable odor of any kind.

(c) (*SStd*) *classification.* Orange marmalade that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1463 *Explanation of terms or analyses.* (a) "Orange fruit ingredient" means the edible portions of clean, sound, mature oranges free from material dryness and damage by freezing, including properly prepared orange peel and orange juice but excluding oranges that are artificially colored. Orange fruit ingredients consist of a mixture of cooked orange peel or canned orange peel together with fresh, cooked, canned, concentrated, or frozen orange juice or any combination thereof. The orange juice may be strained or filtered or may contain part or all of the cellular or edible fibrous portions of the oranges used.

(b) The "weight of orange fruit ingredient" means:

(1) The weight of orange peel after the removal of waste materials commonly removed therefrom and prior to steaming or cooking or canning and exclusive of any added water, water used in preparation, added sweetening ingredients, lemon peel, or lemon juice;

(2) The weight of orange juice, whether concentrated or not, approximating the average soluble solids of single-strength juice; and

(3) That the proportion by weight of such orange peel to such orange juice approximates not more than the orange peel (exclusive of waste materials commonly removed therefrom) and orange juice from sound, mature oranges free from material dryness and damage by freezing.

(c) "Sweetening ingredients" mean sugar, invert sugar sirup, dextrose, corn sirup, corn sirup solids, glucose sirup, or any mixture thereof.

(d) The "weight of sweetening ingredient" means the weight of the solids of such ingredient or ingredients.

(e) "Soluble solids content" is determined by the method prescribed in the "Official Methods of Analysis of the Association of Official Agricultural Chemists" as outlined under the applicable method for determining the soluble solids in marmalades, except that no correction is made for water-insoluble solids.

LOT CERTIFICATION TOLERANCES

§ 52.1464 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of orange marmalade, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Note more than one sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards for quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1465 *Score sheet for orange marmalade.*

Size and kind of container	
Container mark or identification	
Label	
Net weight (ounces)	
Kind	
Style	
Type	
Soluble solids (% by Refractometer)	

Factors	Score points		
Color	20	(A) 17-20 (B) 14-16 (D) [1] 0-13	
Consistency and character	20	(A) 17-20 (B) 14-16 (D) [1] 0-13	
Absence of defects	20	(A) 17-20 (B) [1] 14-16 (D) [1] 0-13	
Flavor and odor	40	(A) 34-40 (B) [1] 28-33 (D) [1] 0-27	
Total score	100		
Grade			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED MUSHROOMS [1]

IDENTITY, COLOR, STYLES, AND GRADES

§ 52.1481 *Identity.* "Canned mushrooms" means canned mushrooms as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.1482 *Color.* (a) White or cream.
(b) Brown.

§ 52.1483 *Styles of canned mushrooms.* (a) "Whole" or "whole mushrooms" means canned mushrooms consisting of the caps with the veils closed and with stems attached.

(b) "Button" or "button mushrooms" means canned mushrooms consisting of the caps with veils closed and with stems removed immediately below the veil.

(c) "Sliced whole" or "sliced whole mushrooms" means canned mushrooms consisting of slices of whole mushrooms which have been sliced parallel to the longitudinal axis.

(d) "Sliced button" or "sliced buttons" means canned mushrooms consisting of slices of buttons which have been sliced at right angles to the diameter of the cap.

(e) "Stems and pieces" means cut or broken portions of caps and stems.

(f) "Unit" means an individual mushroom or portion of a mushroom in canned mushrooms.

§ 52.1484 *Grades of canned mushrooms.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned mushrooms that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a good color; that are practically free from defects; that possess a good character; that are uniform in size and shape; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 85 points: *Provided*, That the canned mushrooms may be fairly uniform in size and shape if the total score is not less than 85 points.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned mushrooms that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that are fairly uniform in size and shape; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of canned mushrooms that fail to meet the requirements of U. S. Grade C or U. S. Standard.

SIZES, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.1485 *Sizes of mushrooms in whole and button mushrooms.* (a) No. 0 (Midget) mushrooms will pass through a round opening ½ inch in diameter.

(b) No. 1 (Tiny) mushrooms will pass through a round opening ⅝ inch in diameter but will not pass through a round opening ½ inch in diameter.

(c) No. 2 (Small) mushrooms will pass through a round opening ⅞ inch in diameter but will not pass through a round opening ⅝ inch in diameter.

(d) No. 3 (Medium) mushrooms will pass through a round opening 1⅛ inches in diameter but will not pass through a round opening ⅞ inch in diameter.

(e) No. 4 (Large) mushrooms will pass through a round opening 1⅜ inches in diameter but will not pass through a round opening 1⅛ inches in diameter.

(f) No. 5 (Extra Large) mushrooms are those too large to pass through a round opening 1⅜ inches in diameter.

§ 52.1486 *Fill of container for canned mushrooms.* The standard for fill of container for canned mushrooms is not incorporated in the grades of the finished product, since fill of container, as such, is not a factor of quality for the purpose of these grades. The standard of fill of containers is not less than 56 percent of the water capacity of the container if such capacity is less than 11.0 ounces avoirdupois; not less than 59 percent of the water capacity of the container if such capacity is 11.0 ounces or more but less than 25 ounces avoirdupois; and not less than 62 percent of the water capacity of the container if such capacity is 25 ounces avoirdupois or more. Canned mushrooms which do not meet this requirement are "Below standard in fill."

§ 52.1487 *Minimum drained weight.* The minimum drained weights in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned mushrooms is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and mushrooms less the weight of the dry sieve. A sieve 8 inches in diameter is used for No. 2½ size cans (401″ x 411″) and smaller and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I—MINIMUM DRAINED WEIGHTS, IN OUNCES, OF CANNED MUSHROOMS

Container designation	Over-all dimensions		Weight of drained mushrooms, ounces (avoirdupois)
	Diameter (inches)	Height (inches)	
2 Z mushroom (202 x 204)	2⅛	2¼	2
6 Z (202 x 308)	2⅛	3½	3¼
4 Z mushroom (211 x 212)	2 11/16	2¾	4
8 Z tall (211 x 304)	2 11/16	3¼	4¾
8-ounce glass			4¾
No. 1 picnic (211 x 400)	2 11/16	4	6
8 Z mushroom (300 x 400)	3	4	8
No. 300 (300 x 407)	3	4 7/16	9
No. 1 tall (301 x 411)	3 1/16	4 11/16	9¾
No. 303 (303 x 406)	3 3/16	4⅜	10
No. 303 glass			10
No. 2 (307 x 409)	3 7/16	4 9/16	12
Jumbo (307 x 510)	3 7/16	5⅝	16
No. 10 (603 x 700)	6 3/16	7	68

FACTORS OF QUALITY

§ 52.1488 *Ascertaining the grade.* (a) The grade of canned mushrooms is ascertained by considering in conjunction with the requirements of the respective grade the respective ratings for the factors of color, uniformity of size and symmetry, absence of defects, and tenderness.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	30
Uniformity of size and shape	20
Absence of defects	30
Character	20
Total score	100

(c) "Normal flavor and odor" means that the product is free from objectionable flavors and objectionable odors of any kind.

§ 52.1489 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1490 *Color*—(a) (*A*) *classification.* Canned mushrooms that possess a good color may be given a score of 26 to 30 points. "Good color" means that the canned mushrooms possess a color that is practically uniform, bright, and typical of canned mushrooms produced from mushrooms of similar varietal characteristics and meet the following additional requirements for the respective color:

(1) *"White" or "cream."* The color of the surface of the cap of the individual mushroom or portion of mushroom of white or cream varieties is not lighter in color than Plate 10, F-2, and is not darker in color than Plate 11, I-5, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(2) *"Brown."* The color of the surface of the cap of the individual mushroom or portion of mushroom of brown varieties is not lighter in color than Plate 11, J-6, and is not darker than

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Plate 13, K–7, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(b) (*C*) *classification.* Canned mushrooms that possess a fairly good color may be given a score of 22 to 25 points. Canned mushrooms that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned mushrooms possess a color that is typical of canned mushrooms produced from mushrooms of similar varietal characteristics and that the product may be dull but not to the extent that the appearance is seriously affected and meet the following additional requirements for the respective colors:

(1) *"White" or "cream."* The color of the surface of the cap of the individual mushroom or portion of mushroom of white or cream varieties may be lighter in color than Plate 10, F–2, but not excessively white, and may be slightly darker in color than Plate 11, I–5: *Provided,* That the gills of none of the units are darker than Plate 14, K–8, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(2) *"Brown."* The color of the surface of the cap of the individual mushroom or portion of mushroom of brown varieties may be lighter in color than Plate 11, J–6, but not excessively light, and may be darker in color than Plate 13, K–7: *Provided,* That the gills of none of the units are darker than Plate 14, K–8, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(c) (*SStd*) *classification.* Canned mushrooms that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1491 *Uniformity of size and shape*—(a) (*A*) *classification.* Canned mushrooms that are practically uniform in size and shape may be given a score of 17 to 20 points. "Practically uniform in size and shape" has the following meanings with respect to the various styles of canned mushrooms:

(1) *Whole mushrooms.* The stems are cut transversely and the diameter of the largest cap does not exceed the diameter of the smallest cap by more than ⅛ inch. The units shall be practically uniform in shape.

(2) *Button mushrooms.* The stems are cut transversely so that the distance from the top of the cap to the end of the stem does not exceed the diameter of the cap, and the diameter of the largest cap does not exceed the diameter of the smallest cap by more than ⅛ inch. The units shall be practically uniform in shape.

(3) *Sliced whole mushrooms.* The length of the longest center slice does not exceed the length of the shortest center slice by more than ⅜ inch and the presence of irregular shaped units does not materially affect the appearance of the product.

(4) *Sliced buttons.* The length of the longest center slice does not exceed the length of the shortest center slice by more than ⅜ inch and the presence of irregular shaped units does not materially affect the appearance of the product.

(5) *Stems and pieces.* Stems and pieces may be irregular in size and shape: *Provided,* That the presence of very small pieces does not materially affect the appearance of the product.

(b) (*C*) *classification.* If the canned mushrooms are fairly uniform in size and shape a score of 13 to 16 points may be given. "Fairly uniform in size and shape" has the following meanings with respect to the various styles of canned mushrooms:

(1) *Whole mushrooms.* The stems are cut transversely and the diameter of the largest cap does not exceed the diameter of the smallest cap by more than ¼ inch. The units shall be fairly uniform in shape.

(2) *Button mushrooms.* The stems are cut transversely so that not more than 10 percent, by count, of the mushrooms have stems of such length that the distance from the tip of the cap to the end of the stem exceeds the diameter of the cap, and the diameter of the largest cap does not exceed the diameter of the smallest cap by more than ¼ inch. The units shall be fairly uniform in shape.

(3) *Sliced whole mushrooms.* The length of the longest center slice does not exceed the length of the shortest center slice by more than ⅝ inch and the presence of irregular shaped units does not seriously affect the appearance of the product.

(4) *Sliced buttons.* The length of the longest center slice does not exceed the length of the shortest center slice by more than ⅝ inch and the presence of irregular shaped units does not seriously affect the appearance of the product.

(5) *Stems and pieces.* Stems and pieces may be irregular in size and shape.

(c) (*SStd*) *classification.* Canned mushrooms that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 12 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1492 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from units which are damaged or seriously damaged.

(1) "Damaged" means damaged by discoloration, pathological injury, insect injury, mechanical injury, or damaged by other means to such an extent that the appearance or eating quality of the unit is materially affected. (Knife marks resulting from the preparation of sliced whole or sliced button mushrooms are not considered mechanical injury.)

(2) "Seriously damaged" means damaged to such an extent that the appearance or eating quality of the unit is seriously affected.

(b) (*A*) *classification.* Canned mushrooms that are practically free from defects may be given a score of 25 to 30 points. "Practically free from defects" means that there may be present not more than 5 percent, by weight, of damaged or seriously damaged units: *Provided,* That not more than 1 percent, by weight, of all the units, or 1 unit, whichever is greater, may be seriously damaged units.

(c) (*C*) *classification.* If the canned mushrooms are fairly free from defects, a score of 22 to 24 points may be given. Canned mushrooms that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present not more than 20 percent, by weight, of damaged or seriously damaged units: *Provided,* That not more than 2 percent, by weight, of all the units, or 2 units, whichever is greater, may be seriously damaged units.

(d) (*SStd*) *classification.* Canned mushrooms that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1493 *Character*—(a) *General.* The factor of character refers to the tenderness and texture of the canned mushrooms and the development of the cap.

(1) "Closed veil" means that the membrane which extends from the inner edge of the cap to the stem practically covers the gills.

(b) (*A*) *classification.* Canned mushrooms that possess a good character may be given a score of 17 to 20 points. "Good character" means that the units are intact, practically all are tender and free from fibrous or rubbery units, and that with respect to whole and button mushrooms at least 95 percent, by weight, of all the units possess closed veils.

(c) (*C*) *classification.* If the canned mushrooms have a fairly good character a score of 13 to 16 points may be given. Canned mushrooms that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the units are reasonably intact, may be fairly tender and reasonably free from fibrous or rubbery units, and that with respect to whole and button mushrooms at least 90 percent, by weight, of all the units possess closed veils.

(d) (*SStd*) *classification.* Canned mushrooms that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 12 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1494 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned mushrooms, the grade for such lot will be determined by averaging the total scores of all containers, if:

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[2] First edition.

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1495 *Score sheet for canned mushrooms.*

Size and kind of container	----
Container mark or identification	----
Label	----
Net weight (ounces)	----
Vacuum (inches)	----
Drained weight (ounces)	----
Style	----
Size	----
Color	----

Factors	Score points		
Color	30	(A) (C) (SStd.)	26-30 [1]22-25 [1]0-21
Uniformity of size and symmetry.	20	(A) C) (SStd.)	17-20 13-16 [1]0-12
Absence of defects	30	(A) (C) (SStd.)	25-30 [1]22-24 [1]0-21
Character	20	(A) (C) (SStd.)	17-20 [1]13-16 [1]0-12
Total score	100		

Grade	----
Normal flavor and odor	----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN OKRA[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1511 *Product description.* Frozen okra is the product prepared from the fresh, immature, succulent pods of the okra plant (Hibiscus esculentus) of either the green or white varieties, by proper washing, trimming and blanching, and which pods are then frozen and stored at temperatures necessary for the preservation of the product.

§ 52.1512 *Styles of frozen okra.* (a) "Whole okra" means frozen okra consisting of whole pods, with or without the caps removed.

(b) "Cut" or "Cuts" means frozen okra consisting of pods with or without the caps removed, which have been cut transversely into pieces not less than ½ inch in length.

(c) "Unit" means an individual pod or portion of a pod in frozen okra.

§ 52.1513 *Grades of frozen okra.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen okra that possesses similar varietal characteristics; that possesses a good flavor and odor; that possesses a good character; that is practically free from defects; and is of such quality with respect to color as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen okra that possesses similar varietal characteristics; that possesses a fairly good flavor and odor; that possesses a reasonably good character; that is reasonably free from defects; that possesses a reasonably good color; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen okra that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

SIZE

§ 52.1514 *Size of frozen okra.* The size of the unit is not a factor of quality for the purpose of these grades. The size of a unit is determined by measuring the length of the unit.

FACTORS OF QUALITY

§ 52.1515 *Ascertaining the grade.* (a) The grade of frozen okra may be ascertained by considering in conjunction with the requirements of the respective grade the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each scoring factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The scores for the factors of color, absence of defects, and character with respect to development of pods and seeds are determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. The degree of tenderness and freedom from fiber and flavor and odor are determined after the product is cooked.

(d) "Good flavor and odor" means that the product after cooking has a good, characteristic, normal flavor and odor and is free from objectionable flavors and odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1516 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1517 *Color*—(a) *(A) classification.* Frozen okra that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the color of the frozen okra is bright, practically uniform and typical of young and tender okra of similar varietal characteristics.

(b) *(B) classification.* If the frozen okra possesses a reasonably good color a score of 14 to 16 points may be given. "Reasonably good color" means that the frozen okra possesses a color that is typical of reasonably young and reasonably tender okra of similar varietal characteristics which may be dull but is not off color.

(c) *(SStd) classification.* Frozen okra that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1518 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, sand, grit, or silt, poorly trimmed units, small pieces, units damaged by mechanical injury, misshapen units, and units blemished or seriously blemished by scars, pathological injury, insect injury, or blemished by other means.

(1) "Blemished unit" means any unit blemished to the extent that the aggregate blemished area materially affects the appearance of the product. (Slight discoloration frequently occurring on the ribs or blossom end of the units is not considered blemished unless the unit is materially affected.)

(2) "Seriously blemished" means blemished to such an extent that the appearance or eating quality of the unit is seriously affected.

(3) "Extraneous vegetable matter" means leaves, stems, and other similar vegetable matter.

(4) "Poorly trimmed" means attached stems in excess of ¼ inch in length and very ragged edges or units that are partially cut.

(5) "Small pieces" means pieces of pod less than ½ inch in length.

(6) "Damaged by mechanical injury" means broken or mashed to such an extent that the appearance or eating quality of the unit is seriously affected.

(7) "Sand, grit, or silt" means any particle of earthy material.

(8) "Misshapen" means any whole pod that is badly crooked, or is seriously affected by malformations.

(b) *(A) classification.* Frozen okra that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" has the following meanings with respect to the following styles of packs of frozen okra.

(1) *Whole.* "Practically free from defects" means that the product contains no sand, grit, or silt that affects the eating quality or appearance of the frozen okra, and that the combined weight of

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

all other defects and defective units does not exceed 10 percent of the weight of the units and that for each 12 ounces of units there may be present:

(i) Not more than 1 piece of extraneous vegetable matter;

(ii) Not more than 4 poorly trimmed units; 4 units damaged by mechanical injury or any combination of not more than 4 poorly trimmed units and units damaged by mechanical injury;

(iii) Not more than 6 percent, by count, of blemished units, and of such 6 percent not more than one-third thereof or 2 percent, by count, of all the units may consist of units that are seriously blemished;

(iv) Not more than 10 percent, by count, of misshapen units; and

(v) Not more than 2 small pieces of pods.

(2) *Cut or cuts.* "Practically free from defects" means that the product contains no sand, grit, or silt that affects the eating quality or appearance of the frozen okra, and that the combined weight of all other defects and defective units does not exceed 8 percent of the weight of the units and that for each 12 ounces of units there may be present:

(i) Not more than one piece of extraneous vegetable matter;

(ii) Not more than 4 percent, by weight, of blemished units and of such 4 percent not more than one-half thereof or 2 percent, by weight, of all the units may consist of units that are seriously blemished;

(iii) Not more than 8 poorly trimmed units, 8 units damaged by mechanical injury or any combination of not more than 8 poorly trimmed units and units damaged by mechanical injury; and

(iv) Not more than 20 small pieces of pods.

(c) *(B) classification.* If the frozen okra is reasonably free from defects a score of 28 to 33 points may be given. Frozen okra that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meaning with respect to the following styles of packs of frozen okra:

(1) *Whole.* "Reasonably free from defects" means that the product may contain a trace of sand, grit, or silt that does not materially affect the eating quality or appearance of the frozen okra, and that the combined weight of all other defects and defective units does not exceed 15 percent of the weight of the units and that for each 12 ounces of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter;

(ii) Not more than 8 poorly trimmed units, 8 units damaged by mechanical injury or any combination of not more than 8 poorly trimmed units and units damaged by mechanical injury;

(iii) Not more than 12 percent, by count, of blemished units, and of such 12 percent not more than one-third thereof or 4 percent, by count, of all the units may consist of units that are seriously blemished;

(iv) Not more than 15 percent, by count, of misshapen units; and

(v) Not more than 4 small pieces of pods.

(2) *Cut or cuts.* "Reasonably free from defects" means that the product may contain a trace of sand, grit, or silt that does not materially affect the eating quality or appearance of the frozen okra, and that the combined weight of all other defects does not exceed 12 percent of the weight of the units and that for each 12 ounces of units there may be present:

(i) Not more than 2 pieces of extraneous vegetable matter;

(ii) Not more than 8 percent, by weight, of blemished units and of such 8 percent not more than one-half thereof or 4 percent, by weight, of all the units may consist of units that are seriously blemished;

(iii) Not more than 12 poorly trimmed units or 12 units damaged by mechanical injury or any combination of not more than 12 poorly trimmed units and units damaged by mechanical injury; and

(iv) Not more than 30 small pieces of pods.

(d) *(SStd) classification.* Frozen okra that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1519 *Character*—(a) *General.* The factor of character refers to the development of the pods and seeds and to the degree of freedom from fiber.

(b) *(A) classification.* Frozen okra that possesses a good character may be given a score of 34 to 40 points. "Good character" means that the units are fleshy and tender, that the seeds are in the early stages of maturity, and that not more than 5 percent, by count, of the units possess tough fibers.

(c) *(B) classification.* If the frozen okra possesses a reasonably good character a score of 28 to 33 points may be given. Frozen okra that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the units may have lost to a considerable extent their fleshy texture; that the units are reasonably tender; that the seeds may have passed the early stages of maturity, and that not more than 10 percent, by count, of the units possess tough fibers.

(d) *(SStd) classification.* Frozen okra that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1520 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen okra the grade of such lot will be determined by averaging the total scores of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1521 *Score sheet for frozen okra.*

Size and kind of container			------
Container marks or identification			------
Label			------
Net weight (ounces)			------
Style (Whole, Cut)			------
Variety (green or white)			------
Factors	Score points		
Color	20	(A) 17-20 (B) 14-16 (D) [1]0-13	
Absence of defects	40	(A) 34-40 (B) [1]28-33 (D) [1]0-27	
Character	40	(A) 34-40 (B) [1]28-33 (D) [1]0-27	
Total score	100		
Grade			------
Flavor and odor			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF OLIVE OIL[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1531 *Product description.* Olive oil is the edible oil obtained from the fruit of the olive tree (Olea europaea L.); is clarified, has a specific gravity of 0.910 to 0.915 at 25° C./25° C.; has an iodine number (Hanus) of 79 to 90; has a refractive index of 1.4668 to 1.4683 at 25° C.; and is packed in containers suitable for preservation of the product.

§ 52.1532 *Grades of olive oil.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of olive oil that possesses the typical greenish to light yellow color of olive oil; possesses a free fatty acid content, calculated as oleic, of not more than 1.4 percent; is free from defects; and is of such quality with respect to odor and flavor as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of olive oil that possesses the typical greenish to light yellow color of olive oil; possesses a free fatty acid content, calculated as oleic, of not more than 2.5 percent; is reasonably free from defects; possesses a reasonably good typical odor; possesses a reasonably good typical flavor; and scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of olive oil that possesses the typical greenish to light yellow color of olive oil; possesses a free fatty acid content, calculated as oleic, of not more than 3.0 percent; is fairly free from defects; possesses a fairly good typical odor; possesses a fairly good typical flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of olive oil that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.1533 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of olive oil be filled with olive oil as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.1534 *Ascertaining the grade.* (a) The grade of olive oil may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Free fatty acid content, absence of defects, odor, and flavor.

(b) The relative importance of each factor is expressed numerically on a scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Free fatty acid content	30
Absence of defects	30
Odor	20
Flavor	20
Total score	100

§ 52.1535 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "27 to 30 points" means 27, 28, 29, and 30 points).

§ 52.1536 *Free fatty acid content*—(a) *General.* The free fatty acid content shall be determined in accordance with the method described in the current "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists."

(b) *(A) classification.* Olive oil that possesses a free fatty acid content of not more than 1.4 percent, calculated as oleic acid, may be given a score of 27 to 30 points.

(c) *(B) classification.* If the olive oil possesses a free fatty acid content of more than 1.4 percent but not more than 2.5 percent, calculated as oleic acid, a score of 24 to 26 points may be given. Olive oil that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(d) *(C) classification.* If the olive oil possesses a free fatty acid content of more than 2.5 percent but not more than 3 percent, calculated as oleic acid, a score of 21 to 23 points may be given. Olive oil that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

(e) *(SStd) classification.* Olive oil that contains more than 3 percent free fatty acid, calculated as oleic, may be given a score of 0 to 20 points, and shall not be graded above U. S. Grade D or Substandard, regardess of the total score for the product (this is a limiting rule).

§ 52.1537 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from cloudiness at 60° F. due to stearin, and from sediment.

(b) *(A) classification.* Olive oil that is free from defects may be given a score of 27 to 30 points. "Free from defects" means that the olive oil is entirely free from the defects mentioned and that no water or other liquid immiscible with the olive oil is present.

(c) *(B) classification.* If the olive oil is reasonably free from defects, a score of 24 to 26 points may be given. Olive oil that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the olive oil is reasonably free from the defects mentioned and that no water or other liquid immiscible with the olive oil is present.

(d) *(C) classification.* If the olive oil is fairly free from defects, a score of 21 to 23 points may be given. Olive oil that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the defects mentioned may be present but may not impair the quality of the olive oil and that no water or other liquid immiscible with the olive oil is present.

(e) *(SStd) classification.* Olive oil that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1538 *Odor*—(a) *General.* The factor of odor refers to a typical olive oil odor and the degree of freedom from strong green olive odors, from musty, moldy, butyric, zapatera odors, or any other off-odors.

(b) *(A) classification.* Olive oil that possesses a good typical odor may be given a score of 18 to 20 points. "Good typical odor" means that the olive oil has a typical olive oil odor and is practically free from off-odors of any kind.

(c) *(B) classification.* If the olive oil possesses a reasonably good typical odor, a score of 16 or 17 points may be given. "Reasonably good typical odor" means that the olive oil has a typical olive oil odor and is reasonably free from off-odors of any kind.

(d) *(C) classification.* If the olive oil possesses a fairly good typical odor, a score of 14 or 15 points may be given. "Fairly good typical odor" means that the olive oil has a typical olive oil odor and is fairly free from off-odors of any kind. Olive oil that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

(e) *(SStd) classification.* Olive oil that fails to meet the requirements of paragraph (d) of this section and that possesses a definite musty moldy, butyric, or zapatera odor or any other definitely objectionable odor may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1539 *Flavor*—(a) *General.* The factor of flavor refers to the typical olive oil flavor and the degree of freedom from strong green olive flavors, from musty, moldy, butyric, zapatera, rancid, or any other off-flavors.

(b) *(A) classification.* Olive oil that possesses a good typical flavor may be given a score of 18 to 20 points. "Good typical flavor" means that the olive oil has a typical olive oil flavor and is practically free from off-flavors of any kind.

(c) *(B) classification.* If the olive oil possesses a reasonably good typical flavor, a score of 16 or 17 points may be given. "Reasonably good typical flavor" means that the olive oil has a typical olive oil flavor and is reasonably free from off-flavors of any kind.

(d) *(C) classification.* If the olive oil possesses a fairly good typical flavor, a score of 14 or 15 points may be given. "Fairly good flavor" means that the olive oil has a typical olive oil flavor and is fairly free from off-flavors of any kind. Olive oil that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

(e) *(SStd) classification.* Olive oil that fails to meet the requirements of paragraph (d) of this section and that possesses a definite musty, moldy, butyric, zapatera, or rancid flavor or any other definitely objectionable flavor may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1540 *Tolerance for certification of officially drawn samples* (a) When certifying samples that have been officially drawn and which represent a specific lot of olive oil, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such

limiting rule, must be within the range for the grade indicated.

(2) None of the containers comprising the sample fall more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1541 *Score sheet for olive oil.* The following score sheet may be used to summarize the factors determining the various grades:

Size and kind of container	------
Container code or marking	------
Label	------
Contents (liquid measure)	------

Factors	Score points		
Free fatty acid content	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (D) [1] 0-20	
Absence of defects	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (D) [1] 0-20	
Odor	20	(A) 18-20 (B) 16-17 (C) [1] 14-15 (D) [1] 0-13	
Flavor	20	(A) 18-20 (B) 16-17 (C) [1] 14-15 (D) [1] 0-13	
Total score	100	------------	------
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED ORANGE JUICE[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1551 *Product description.* Canned orange juice is the undiluted, unconcentrated, unfermented juice obtained from mature fresh fruit of the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines, which fruit has been properly washed; is packed with or without the addition of sweetening ingredients; is sufficiently processed by heat to assure preservation of the product; and is packed in containers which are hermetically sealed.

§ 52.1552 *Grades of canned orange juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned orange juice that shows no coagulation; that possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned orange juice that may show slight coagulation; that possesses a good color; is fairly free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned orange juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.1553 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that the container be filled as full as practicable with orange juice and that the product occupy not less than 90 percent of the total capacity of the container.

FACTORS OF QUALITY

§ 52.1554 *Ascertaining the grade.* (a) The grade of canned orange juice may be ascertained by considering, in addition to the foregoing requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1555 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1556 *Color*—(a) *(A) classification.* Canned orange juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the orange juice possesses a bright yellow to yellow-orange color typical of freshly extracted juice and is free from browning due to scorching, oxidation, caramelization, or other causes.

(b) *(C) classification.* If the canned orange juice possesses a good color, a score of 14 to 16 points may be given. Canned orange juice that falls into this classification shall not be graded above the U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means that the orange juice may be slightly amber or very light in color but is typical of canned orange juice and may show evidence of slight browning, but is not off-color.

(c) *(SStd) classification.* Canned orange juice that for any reason fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1557 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from recoverable oil; from particles of membrane, core, or skin; from seeds or seed particles; or from other defects.

(b) *(A) classification.* Canned orange juice that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present not more than 0.030 percent by volume of recoverable oil and that the juice does not contain particles of membrane, core, or skin, seeds or seed particles, or other defects that more than slightly affect the appearance of the product.

(c) *(C) classification.* If the canned orange juice is fairly free from defects, a score of 28 to 33 points may be given. Canned orange juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present not more than 0.050 percent by volume of recoverable oil and that the juice does not contain particles of membrane, core, or skin, seed or seed particles, or other defects that materially affect the appearance of the product.

(d) *(SStd) classification.* If the canned orange juice fails to meet the requirements of paragraph (c) of this section, a score of 0 to 27 points may be given. Canned orange juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1558 *Flavor*—(a) *(A) classification.* (1) Canned orange juice that possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means a fine, distinct canned orange juice flavor which is free from traces of scorching, caramelization, oxidation, or terpene; is free from off flavors of any kind; and meets the following requirements:

(i) Brix—Not less than 10.5 degrees.

(ii) Acid—Not less than 0.75 gram nor more than 1.45 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 9 to 1 nor more than 18 to 1.

(2) Canned orange juice is considered "sweet" if the juice possesses a very good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.75 gram nor more than 1.45 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 11 to 1 nor more than 18 to 1, provided that when the Brix of the juice is 16 degrees or more, the Brix-acid ratio may be less than 11 to 1.

(b) *(C) classification.* (1) If the canned orange juice possesses a good flavor, a score of 28 to 33 points may be given. Canned orange juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good flavor" means a good, normal canned orange juice flavor which may have a slightly caramelized or slightly oxidized flavor but is free from off flavors of any kind and meets the following requirements:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

(i) Brix—Not less than 10.0 degrees.

(ii) Acid—Not less than 0.55 gram nor more than 1.60 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 8.5 to 1.

(2) Canned orange juice is considered "sweet" if the juice possesses a good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.65 gram nor more than 1.65 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 11 to 1, provided that when the Brix of the juice is 16 degrees or more, the Brix-acid ratio may be less than 11 to 1.

(c) (*SStd*) *classification*. Canned orange juice that fails to meet the requirements of paragraph (b) of this section, is off flavor, or is unpalatable for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1559 *Definitions of terms*. (a) "Brix" means the degrees Brix of canned orange juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned orange juice may be determined by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as anhydrous citric acid) per 100 ml. of juice in canned orange juice determined by titration with standard sodium hydroxide solution using phenolphthalein indicator.

§ 52.1560 *Explanation of analyses*. (a) Recoverable oil is determined by the following method:

(1) *Equipment*. Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2.[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure*. Exactly 2 liters of juice are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from bottom to top, and bring the juice to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute. By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(i) The number of milliliters of oil recovered divided by 20 equals the percent by volume of recoverable oil.

LOT CERTIFICATION TOLERANCES

§ 52.1561 *Tolerances for certification of officially drawn samples*. (a) When certifying samples that have been officially drawn and which represent a specific lot of canned orange juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1562 *Score sheet for canned orange juice*.

Size and kind of container	------
Container mark or identification	------
Label	------
Liquid measure (fl. ounces)	------
Vacuum (in inches)	------
Brix (degrees)	------
Acid (anhydrous citric: grams/100 ml.)	------
Brix-acid ratio	------
Recoverable oil (percent by volume)	------

Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1]14-16	
		(D)	[1]0-13	
Absence of Defects	40	(A)	34-40	
		(C)	[1]28-33	
		(D)	[1]0-27	
Flavor	40	(A)	34-40	
		(C)	[1]28-33	
		(D)	[1]0-27	
Total score	100			
Grade				------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN CONCENTRATED ORANGE JUICE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1581 *Product description*. Frozen concentrated orange juice is the frozen product of concentrated, unfermented juice obtained from sound, mature fruit of the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines. The fruit is prepared by sorting and by washing prior to extraction of the juice to assure a clean product. Upon extraction of such juice, it is concentrated; and fresh orange juice extracted from sorted and washed fruit, as aforesaid, is admixed to the concentrate. The concentrated orange juice is packed in accordance with good commercial practice and is frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.1582 *Styles of frozen concentrated orange juice*—(a) *Style I, without sweetening ingredients added*. The Brix value of the finished concentrate shall be not less than 41.5 degrees nor more than 44.0 degrees.

(b) *Style II, with sweetening ingredient added*. The finished concentrate, exclusive of added sweetening ingredient, has a Brix value of not less than 40 degrees; and the finished concentrate, including added sweetening ingredient, shall have a Brix value of not less than 42 degrees but not more than 49 degrees.

§ 52.1583 *Grades of frozen concentrated orange juice*. (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses the appearance of fresh orange juice; possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses a good color; is reasonably free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen concentrated orange juice that fails to meet the requirements of U. S. Grade B or U. S. Choice.

FILL OF CONTAINER

§ 52.1584 *Recommended fill of container*. The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that the container be filled with frozen concentrated orange juice as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.1585 *Ascertaining the grade*. (a) The grade of frozen concentrated orange juice is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

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[2] Filed with the Federal Register Division as part of the original document.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetics Act, or with applicable State laws and regulations.

Factors:	Points
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1586 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1587 *Color*—(a) (*A*) *classification.* Frozen concentrated orange juice of which the reconstituted juice possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the color is the bright yellow to yellow-orange color typical of fresh orange juice.

(b) (*B*) *classification.* If the reconstituted juice possesses a good color, a score of 14 to 16 points may be given. Frozen concentrated orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good color" means that the color is the yellow to yellow-orange color typical of fresh orange juice, which may be dull but is not off color for any reason.

(c) (*SStd*) *classification.* If the reconstituted juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 13 points may be given. Frozen concentrated orange juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1588 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds and portions thereof, from excessive juice cells, from pulp, from recoverable oil, and from other defects.

(1) "Pulp" means particles of membrane, core, and peel.

(b) (*A*) *classification.* Frozen concentrated orange juice of which the reconstituted juice is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not materially affect the appearance or drinking quality of the juice; (2) juice cells and pulp that do not materially affect the appearance or drinking quality of the juice; and (3) other defects that are not more than slightly objectionable. To score in this classification the frozen concentrated orange juice may contain not more than 0.100 milliliter of recoverable oil per 100 grams of the concentrated product.

(c) (*B*) *classification.* If the reconstituted juice is reasonably free from defects, a score of 28 to 33 points may be given. Frozen concentrated orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present: (1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not seriously affect the appearance or drinking quality of the juice; (2) juice cells and pulp that do not seriously affect the appearance or drinking quality of the juice; and (3) other defects that are not materially objectionable. To score in this classification the frozen concentrated orange juice may contain not more than 0.120 milliliter of recoverable oil per 100 grams of the concentrated product.

(d) (*SStd*) *classification.* Frozen concentrated orange juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1589 *Flavor*—(a) (*A*) *classification.* Frozen concentrated orange juice of which the reconstituted juice possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means that the flavor is fine, distinct, and substantially typical of orange juice extracted from fresh mature sweet oranges. To score not less than 34 points frozen concentrated orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 11.5 to 1 nor more than 18 to 1 (see Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 12 to 1 nor more than 14 to 1 (see Table II).

(b) (*B*) *classification.* If the reconstituted juice possesses a good flavor, a score of 28 to 33 points may be given. Frozen concentrated orange juice that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Good flavor" means that the flavor is fairly typical of fresh orange juice extracted from fresh mature sweet oranges and is free from abnormal flavors and off flavors of any kind. To score not less than 28 points frozen concentrated orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 10 to 1 nor more than 19 to 1 (see Table I).

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 10 to 1 nor more than 15 to 1 (see Table II).

(c) (*SStd*) *classification.* If the frozen concentrated orange juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Frozen concentrated orange juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

TABLE I—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED ORANGE JUICE

STYLE I. WITHOUT SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 11.5:1	Ratio 18:1	Ratio 10:1	Ratio 19:1
	Acid (percent by weight)		Acid (percent by weight)	
	Maximum	Minimum	Maximum	Minimum
41.5°	3.61	2.31	4.15	2.18
41.6°	3.62	2.31	4.16	2.19
41.7°	3.63	2.32	4.17	2.19
41.8°	3.63	2.32	4.18	2.20
41.9°	3.64	2.33	4.19	2.21
42.0°	3.65	2.33	4.20	2.21
42.1°	3.66	2.34	4.21	2.22
42.2°	3.67	2.34	4.22	2.22
42.3°	3.68	2.35	4.23	2.23
42.4°	3.69	2.36	4.24	2.23
42.5°	3.70	2.36	4.25	2.24
42.6°	3.70	2.37	4.26	2.24
42.7°	3.71	2.37	4.27	2.25
42.8°	3.72	2.38	4.28	2.25
42.9°	3.73	2.38	4.29	2.26
43.0°	3.74	2.39	4.30	2.26
43.1°	3.75	2.39	4.31	2.27
43.2°	3.76	2.40	4.32	2.27
43.3°	3.77	2.41	4.33	2.28
43.4°	3.77	2.41	4.34	2.28
43.5°	3.78	2.42	4.35	2.29
43.6°	3.79	2.42	4.36	2.29
43.7°	3.80	2.43	4.37	2.30
43.8°	3.81	2.43	4.38	2.31
43.9°	3.82	2.44	4.39	2.31
44.0°	3.83	2.44	4.40	2.32

TABLE II—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED ORANGE JUICE

STYLE II. WITH SWEETENING INGREDIENT ADDED

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 12:1	Ratio 14:1	Ratio 10:1	Ratio 15:1
	Acid (percent by weight)		Acid (percent by weight)	
	Maximum	Minimum	Maximum	Minimum
42.0°	3.50	3.00	4.20	2.80
42.1°	3.51	3.01	4.21	2.81
42.2°	3.52	3.01	4.22	2.81
42.3°	3.53	3.02	4.23	2.82
42.4°	3.53	3.03	4.24	2.83
42.5°	3.54	3.04	4.25	2.83
42.6°	3.55	3.04	4.26	2.84
42.7°	3.56	3.05	4.27	2.85
42.8°	3.57	3.06	4.28	2.85
42.9°	3.58	3.06	4.29	2.86
43.0°	3.58	3.07	4.30	2.87
43.1°	3.59	3.08	4.31	2.87
43.2°	3.60	3.09	4.32	2.88
43.3°	3.61	3.09	4.33	2.89
43.4°	3.62	3.10	4.34	2.89
43.5°	3.63	3.11	4.35	2.90
43.6°	3.63	3.11	4.36	2.91
43.7°	3.64	3.12	4.37	2.91
43.8°	3.65	3.13	4.38	2.92
43.9°	3.66	3.14	4.39	2.93
44.0°	3.67	3.14	4.40	2.93
44.1°	3.68	3.15	4.41	2.94
44.2°	3.68	3.16	4.42	2.95
44.3°	3.69	3.16	4.43	2.95
44.4°	3.70	3.17	4.44	2.96
44.5°	3.71	3.18	4.45	2.97
44.6°	3.72	3.19	4.46	2.97
44.7°	3.73	3.19	4.47	2.98
44.8°	3.73	3.20	4.48	2.99
44.9°	3.74	3.21	4.49	2.99
45.0°	3.75	3.21	4.50	3.00
45.1°	3.76	3.22	4.51	3.01
45.2°	3.77	3.23	4.52	3.01
45.3°	3.78	3.24	4.53	3.02
45.4°	3.78	3.24	4.54	3.03
45.5°	3.79	3.25	4.55	3.03
45.6°	3.80	3.26	4.56	3.04
45.7°	3.81	3.26	4.57	3.05
45.8°	3.82	3.27	4.58	3.05
45.9°	3.83	3.28	4.59	3.06
46.0°	3.83	3.29	4.60	3.07
46.1°	3.84	3.29	4.61	3.07
46.2°	3.85	3.30	4.62	3.08
46.3°	3.86	3.31	4.63	3.09
46.4°	3.87	3.31	4.64	3.09
46.5°	3.88	3.32	4.65	3.10
46.6°	3.88	3.33	4.66	3.11
46.7°	3.89	3.34	4.67	3.11
46.8°	3.90	3.34	4.68	3.12
46.9°	3.91	3.35	4.69	3.13
47.0°	3.92	3.36	4.70	3.13

TABLE II—MAXIMUM AND MINIMUM ACID FOR FROZEN CONCENTRATED ORANGE JUICE—Continued

STYLE II. WITH SWEETENING INGREDIENT ADDED—con.

Brix value of the concentrate in degrees Brix	U. S. Grade A or U. S. Fancy		U. S. Grade B or U. S. Choice	
	Ratio 12:1	Ratio 14:1	Ratio 10:1	Ratio 15:1
	Acid (percent by weight)		Acid (percent by weight)	
	Maximum	Minimum	Maximum	Minimum
47.1°	3.93	3.36	4.71	3.14
47.2°	3.93	3.37	4.72	3.15
47.3°	3.94	3.38	4.73	3.15
47.4°	3.95	3.39	4.74	3.16
47.5°	3.96	3.39	4.75	3.17
47.6°	3.97	3.40	4.76	3.17
47.7°	3.98	3.41	4.77	3.18
47.8°	3.98	3.41	4.78	3.19
47.9°	3.99	3.42	4.79	3.19
48.0°	4.00	3.43	4.80	3.20
48.1°	4.01	3.44	4.81	3.21
48.2°	4.02	3.44	4.82	3.21
48.3°	4.03	3.45	4.83	3.22
48.4°	4.03	3.46	4.84	3.23
48.5°	4.04	3.46	4.85	3.23
48.6°	4.05	3.47	4.86	3.24
48.7°	4.06	3.48	4.87	3.25
48.8°	4.07	3.49	4.88	3.25
48.9°	4.08	3.49	4.89	3.26
49.0°	4.08	3.50	4.90	3.27

EXPLANATION AND METHODS OF ANALYSES

§ 52.1590 *Definitions of terms as used in these standards.* (a) "Oranges" means oranges of the sweet orange group (Citrus sinensis) and the Mandarin group (Citrus reticulata), except tangerines.

(b) "Reconstituted juice" means the product obtained by mixing thoroughly 3 parts by volume of distilled water and one part by volume of frozen concentrated orange juice.

(c) "Reconstitutes properly" means that the reconstituted juice shows no material separation of colloidal or suspended matter, leaving a zone of definitely clear liquid without any turbidity, after standing four (4) hours at a temperature of not less than 68 degrees Fahrenheit in a clear glass tube or cylinder (such as a 50 ml. graduated cylinder).

(d) "Acid" means the percent by weight of acid (calculated as anhydrous citric acid) in frozen concentrated orange juice.

(e) "Brix value" in frozen concentrated orange juice is the refractometric sucrose value determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions and to which the applicable correction for acid is added. (See Table III for corrections).

TABLE III—CORRECTIONS FOR OBTAINING BRIX VALUES[1]

Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value	Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value
2.0	0.39	3.6	0.70
2.2	.43	3.8	.74
2.4	.47	4.0	.78
2.6	.51	4.2	.81
2.8	.54	4.4	.85
3.0	.58	4.6	.89
3.2	.62	4.8	.93
3.4	.66	5.0	.97

[1] Source: "Refractometric Determination of Soluble Solids in Citrus Juices," by J. W. Stevens and W. E. Baier, from the Analytical Edition of Industrial and Engineering Chemistry, vol. II, p. 447, Aug. 15, 1939.

§ 52.1591 *Explanation of analyses.* (a) The measurement of Brix value is determined on the thawed concentrate in accordance with the refractometric method for sugars and sugar products, outlined in the Official and Tentative Methods of the Association of Official Agricultural Chemists.

(b) "Acid," calculated as anhydrous citric acid, is determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator.

(c) "Recoverable oil" is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1[2] and Figure 2:[2]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* Exactly 400 grams of the thawed concentrate mixed with water to approximately two liters are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from the bottom to top, and bring the solution to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute.

(i) By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(ii) The number of milliliters of oil recovered divided by 4 equals the volume of recoverable oil per 100 grams of concentrate.

LOT CERTIFICATION TOLERANCES

§ 52.1592 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen concentrated orange juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1593 *Score sheet for frozen concentrated orange juice.*

Size and kind of container	------
Container mark or identification	------
Label	------
Liquid measure (fl. ounces)	------
Brix value of concentrate (corrected for acid)	------
Anhydrous citric acid (% by weight)	------
Brix value to acid ratio	------
Recoverable oil (ml./100 grams)	------
Reconstitutes properly (yes) (no)	------
Appearance of fresh juice (yes) (no)	------

Factors	Score points		
Color	20	(A) 17–20 (B) [1] 14–16 (D) [1] 0–13	
Absence of defects	40	(A) 34–40 (B) [1] 28–33 (D) [1] 0–27	
Flavor	40	(A) 34–40 (B) [1] 28–33 (D) [1] 0–27	
Total score	100		
Grade			------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PEARS[1]

IDENTITY, STYLES, AND GRADES

§ 52.1611 *Identity.* "Canned pears" means the canned product prepared from properly prepared, mature pears, as such product is defined in the standard of identity for canned pears (21 CFR 27.20) issued pursuant to the Federal Food, Drug, and Cosmetic Act. For the purposes of these standards, canned pears when referred to as "canned 'solid-pack' pears" means prepared pears, packed without a liquid packing medium, sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.1612 *Styles of canned pears.* (a) "Halves" or "halved" canned pears are peeled pears, with cores and stems removed, cut longitudinally from stem to calyx into approximate halves.

(b) "Unpeeled halves" or "unpeeled halved" canned pears are unpeeled pears, with cores and stems removed, cut longitudinally from stem to calyx into approximate halves.

(c) "Quarters" or "quartered" canned pears are peeled pears, with cores and stems removed, cut longitudinally from stem to calyx into approximate quarters.

(d) "Slices" or "sliced" canned pears are peeled pears, with cores and stems removed, cut longitudinally from stem to calyx into approximately equal segments smaller than quarters.

(e) "Dice" or "diced" canned pears are peeled pears, with cores and stems removed, cut into approximate cubes.

(f) "Whole" canned pears are peeled, uncored, whole pears with or without stems removed.

(g) "Unpeeled whole" canned pears are unpeeled, uncored, whole pears with or without stems removed.

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[2] Filed with the Federal Register Division as part of the original document.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(h) "Mixed pieces of irregular sizes and shapes" are peeled and cored units of canned pears that are predominantly irregular in size and shape and which do not conform to a single style of halves, quarters, slices, dice, or whole and may consist of:

(1) Units (commonly called "salad cuts" or "salad pieces") which may have been prepared originally as pear halves but which are irregular in size and shape in that more than one-fourth of the unit appears to have been removed at the outer curved surface or which have been further cut into pieces of irregular sizes and shapes; and

(2) Mixtures of two or more of the following styles which may or may not be of normal shape: Halves, quarters, slices, dice, or whole.

§ 52.1613 *Grades of canned pears.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and that are of such quality with respect to color and with respect to uniformity of size and symmetry for the applicable style as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, or mixed pieces of irregular sizes and shapes of canned pears that possess at least a reasonably good color for the applicable style; that are at least reasonably free from defects; that possess at least a reasonably good character; that possess a normal flavor and odor; and that are of such quality with respect to uniformity of size and symmetry for the applicable style as to score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, or mixed pieces of irregular sizes and shapes of canned pears that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that are of such quality with respect to uniformity of size and symmetry for the applicable style as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of canned pears that fail to meet the requirements of U. S. Grade C or U. S. Standard and is the quality of canned pears that may or may not meet the minimum standard of quality for canned pears issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.1614 *Grades of canned solid-pack pears.* (a) "U. S. Grade B Solid-Pack" or "U. S. Choice Solid-Pack" is the quality of halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess at least a reasonably good color; that are at least reasonably free from defects for canned "solid-pack" pears; that possess at least a reasonably good character for canned "solid-pack" pears; that possess a normal flavor and odor; and that score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C Solid-Pack" or "U. S. Standard Solid-Pack" is the quality of halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess a fairly good color; that are fairly free from defects for canned "solid-pack" pears; that possess a fairly good character for canned "solid-pack" pears; that possess a normal flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard Solid-Pack" is the quality of halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that fail to meet the requirements of "U. S. Grade C Solid-Pack" or "U. S. Standard Solid-Pack".

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.1615 *Liquid media and Brix measurements for canned pears.* "Cut-out" requirements for liquid media in canned pears are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. The "cut-out" Brix measurement, as applicable, for the respective designations are as follows:

Designations	*Brix measurement*
"Extra heavy sirup" or "Extra heavy pear juice sirup".	22° or more but not more than 35°.
"Heavy sirup" or "Heavy pear juice sirup".	18° or more but less than 22°.
"Light sirup" or "Light pear juice sirup".	14° or more but less than 18°.
"Slightly sweetened water" or "Slightly sweetened pear juice".	Less than 14°.
"In water"	Packed in water.
"In pear juice"	Packed in pear juice.

§ 52.1616 *Fill of container for canned pears.* The standard of fill of container for canned pears is the maximum quantity of the pear units which can be sealed in the container and processed by heat to prevent spoilage, without crushing or breaking such ingredient. Canned pears that do not meet this requirement are "Below Standard in Fill."

§ 52.1617 *Recommended fill of container for canned "solid-pack" pears.* The recommended fill of container for canned "solid-pack" pears is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of "solid-pack" pears be filled as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the volume of the container.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR HALVES AND UNPEELED HALVES

Range of count of halves per container	Any grade in any sirup or other liquid medium							
	Metal containers						Glass containers	
	8 Z Tall (211 x 304)	No. 1 Tall (301 x 411)	No. 303 (303 x 406)	No. 2 (307 x 409)	No. 2½ (401 x 411)	No. 10 (603 x 700)	No. 303	No. 2½
	Ounces	*Ounces*	*Ounces*	*Ounces*	*Ounces*	*Ounces*	*Ounces*	*Ounces*
3 to 6	4½	9	9	11	16	----------	9	16
7 to 9	4¾	9¼	9¼	11½	16½	----------	9¼	16¼
10 to 12	----------	9¾	9¾	11¾	17	----------	----------	16½
13 to 15	----------	----------	----------	----------	17½	----------	----------	16¾
16 to 22	----------	----------	----------	----------	18	62	----------	17
23 to 30	----------	----------	----------	----------	----------	62½	----------	----------
31 to 40	----------	----------	----------	----------	----------	63	----------	----------
41 and over	----------	----------	----------	----------	----------	63	----------	----------

	"Solid-pack" only—Metal containers	
	No. 2½ (401 x 411)	No. 10 (603 x 700)
Any count	24 ounces	90 ounces

TABLE II—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR QUARTERS, SLICES, DICED, AND MIXED PIECES OF IRREGULAR SIZES AND SHAPES

Container designation (metal, unless otherwise stated)	Container size—over-all dimensions		Any grade in any sirup or other liquid medium			
	Width	Height	Quarters	Slices	Diced	Mixed pieces of irregular sizes and shapes
	Inches	*Inches*	*Ounces*	*Ounces*	*Ounces*	*Ounces*
8 Z tall	2 11/16	3 4/16	5	5	5	------------
8 oz. glass	------------	------------	5	5	5	------------
No. 1 tall	3 1/16	4 11/16	9¾	9¾	9¾	------------
No. 303	3 3/16	4 6/16	9¾	9¾	9¾	------------
303 glass	------------	------------	9¾	9¾	9¾	------------
No. 2	3 7/16	4 9/16	12¼	12¼	12¼	12¼
No. 2½	4 1/16	4 11/16	17¾	17¾	17¾	17¾
No. 2½ glass	------------	------------	17½	17½	17½	17½
No. 10	6 3/16	7	65	65	65	65
			"Solid-pack" only—mixed pieces of irregular sizes and shapes			
No. 2½	4 1/16	4 11/16	24 ounces			
No. 10	6 3/16	7	90 ounces			

§ 52.1618 *Recommended minimum drained weight.* The minimum drained weight recommendations for the various applicable styles in Table I and Table II are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned pears and canned "solid-pack" pears is determined by emptying the contents of the container, turning the pit cavities down in halves, upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch ± 3 percent, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and pears less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

§ 52.1619 *Compliance with recommended drained weights.* Compliance with the recommended drained weights for canned pears and canned "solid-pack" pears is determined by averaging the drained weights from all the containers which are representative of a specific lot and such lot is considered as meeting the recommendations, for the applicable styles, if in:

(a) *Halves and unpeeled halves.* (1) The average of the drained weights from all of the containers meets the average of the recommended drained weights for the counts from the containers examined;

(2) One-half or more of the containers meet the recommended drained weight from the respective count found; and

(3) The drained weights from the containers which do not meet the recommended drained weight for the count found are within the range of variability for good commercial practice.

(b) *Quarters; slices; diced; mixed pieces of irregular sizes and shapes.* (1) The average drained weight from all the containers meets the recommended drained weight;

(2) One-half or more of the containers meet the recommended drained weight; and

(3) The drained weights from the containers which do not meet the recommended drained weight are within the range of variability for good commercial practice.

FACTORS OF QUALITY

§ 52.1620 *Ascertaining the grade.* (a) The grade of canned pears is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size and symmetry, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Uniformity of size and symmetry	20
Absence of defects	30
Character	30
Total score	100

(c) "Normal flavor and odor" means that the canned pears are free from objectionable flavors and objectionable odors of any kind.

§ 52.1621 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1622 *Color*—(a) *General.* The factor of color refers to the color typical of the variety and its uniformity in each unit and among the units. The factor of color for canned pears that are unpeeled or spiced is not based on any detailed requirements and is not scored but the color shall be normal for unpeeled or spiced canned pears; the other three factors (uniformity of size and symmetry, absence of defects, and character as applicable) are scored and the total is multiplied by 100 and divided by 80, dropping any fractions to determine the total score.

(b) (*A*) *classification.* Halves, quarters, slices, diced, or whole canned pears that possess a good color may be given a score of 18 to 20 points. "Good color" means that the units of pears individually and collectively possess a characteristic, practically uniform color that is typical white or light yellow-white; that there is no more than a slight variation from an ideal color and translucency for properly prepared and properly processed canned pears; and that in halves, quarters, slices, or whole not more than 10 percent by count of the units may possess "reasonably good color", provided none of such units are "dead white" (or "chalky") in appearance. One unit of halves, quarters, slices, or whole in a single container is permitted to be "reasonably good color" if such unit exceeds the allowance of 10 percent by count.

(c) (*B*) *and* (*B–SP*) *classification.* Halves, quarters, slices, diced, or whole canned pears that possess a reasonably good color; mixed pieces of irregular sizes and shapes of canned pears that possess at least a reasonably good color; and halves or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess at least a reasonably good color may be given a score of 16 or 17 points. Mixed pieces of irregular sizes and shapes of canned pears and halves or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice or U. S. Grade B Solid-Pack or U. S. Choice Solid-Pack, whichever is applicable, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the units of pears individually and collectively possess a reasonably uniform and reasonably characteristic color that may show a very slight tint of pink or brown; that may show a slight lack of uniformity; that may vary slightly in translucency; and that in halves, quarters, slices, whole, or mixed pieces of irregular sizes and shapes not more than 10 percent by count of the units may possess "fairly good color" including units that may be "dead white" (or "chalky") in appearance. One unit of halves, quarters, slices, whole, or of mixed pieces of irregular sizes and shapes in a single container is permitted to be "fairly good color" including a unit that may be "dead white" (or "chalky") in appearance if such unit exceeds the allowance of 10 percent by count.

(d) (*C*) *and* (*C–SP*) *classification.* Halves, quarters, slices, diced, whole, or mixed pieces of irregular sizes and shapes of canned pears and halves or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess a fairly good color may be given a score of 14 or 15 points. Canned pears or canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard or U. S. Grade C Solid-Pack or U. S. Standard Solid-Pack, whichever is applicable, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the units of pears individually and collectively may vary noticeably from a uniform, characteristic color; may be "dead white" (or "chalky") in appearance; may have a slight pink or brown cast but not a definitely pink or brown color; and are not off-color for any reason.

(e) *(SStd) and (SStd-SP) classification.* Canned pears and canned "solid-pack" pears that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard or Substandard Solid-Pack, whichever is applicable, regardless of the total score for the product (this is a limiting rule).

§ 52.1623 *Uniformity of size and symmetry*—(a) *General.* The factor of uniformity of size and symmetry for mixed pieces of irregular sizes and shapes of canned pears and for canned "solid-pack"' pears is not based on any detailed requirements and is not scored; the other three factors (color, absence of defects, and character as applicable) are scored and the total is multiplied by 100 and divided by 80, dropping any fractions to determine the total score.

(b) *(A) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or whole unpeeled canned pears that are practically uniform in size and symmetry may be given a score of 18 to 20 points. "Practically uniform in size and symmetry" has the following meanings with respect to the following styles of canned pears:

(1) *Halves, unpeeled halves, quarters, whole, unpeeled whole.* The units are very symmetrical and the weight of the largest full-size unit does not exceed the weight of the smallest full-size unit by more than 40 percent; the weight of each half is not less than 3/5 ounce; and the weight of each quarter is not less than 3/10 ounce.

(2) *Slices.* Not more than 10 percent by count of the units vary noticeably from the uniform shape of slices.

(3) *Diced.* Not more than 10 percent by weight of the units are more than 3/4 inch in greatest edge dimension or pass through a 5/16-inch square opening.

(c) *(B) classification.* Halves, unpeeled halves, quarters, slices, diced, whole unpeeled, or whole canned pears that are reasonably uniform in size and symmetry may be given a score of 16 or 17 points. "Reasonably uniform in size and symmetry" has the following meanings with respect to the following styles of canned pears:

(1) *Halves, unpeeled halves, quarters, whole, unpeeled whole.* The units are reasonably symmetrical and the weight of the largest full-size unit does not exceed the weight of the smallest full-size unit by more than 60 percent; the weight of each half is not less than 3/5 ounce; and the weight of each quarter is not less than 3/10 ounce.

(2) *Slices.* Not more than 15 percent by count of the units vary noticeably from the uniform shape of slices.

(3) *Diced.* Not more than 15 percent by weight of the unis are more than 3/4 inch in greatest edge dimension or pass through a 5/16-inch square opening.

(d) *(C) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that are fairly uniform in size and symmetry may be given a score of 14 or 15 points. "Fairly uniform in size and symmetry" has the following meanings with respect to the following styles of canned pears:

(1) *Halves, unpeeled halves, quarters, whole, unpeeled whole.* The units may vary in size, thickness, and symmetry and the weight of the largest full-size unit may be not more than twice the weight of the smallest full-size unit; the weight of each half is not less than 3/5 ounce; and the weight of each quarter is not less than 3/10 ounce.

(2) *Slices.* Not more than 20 percent by count of the units vary noticeably from the uniform shape of slices.

(3) *Diced.* Not more than 20 percent by weight of the units are more than 3/4 inch in greatest edge dimension or pass through a 5/16-inch square opening.

(e) *(SStd) classification.* Canned pears of the applicable styles which fail to meet paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above the following stated grade, regardless of the total score for the product (this is a limiting rule):

(1) Halves, unpeeled halves, quarters, whole, or unpeeled whole canned pears in which the weight of the largest full-size unit is more than twice the weight of the smallest full-size unit shall not be graded above Substandard and are also "Below Standard in Quality—Mixed Sizes."

(2) Halves or unpeeled halves of canned pears in which the weight of any half is less than 3/5 ounce shall not be graded above Substandard and are also "Below Standard in Quality—Small Halves."

(3) Quarters of canned pears in which the weight of any quarter is less than 3/10 ounce shall not be graded above Substandard and are also "Below Standard in Quality—Small Quarters."

(4) Slices and diced canned pears shall not be graded above Substandard.

§ 52.1624 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from peel, from blemished units, from units that are crushed or broken, from trimmed units for the applicable styles, and from any other defects which detract from the appearance or edibility of the product.

(1) "Blemished" or "blemished units" means units that are blemished with scab, hail injury, discoloration, or other abnormality covering an aggregate area exceeding the area of a circle 1/4 inch in diameter. Units with black or very dark spots or any other damage which materially affect the appearance or edibility of the product are considered as "blemished", regardless of the area of the injury.

(2) "Crushed or broken" means that

(i) A unit of halves, unpeeled halves, quarters, slices, whole, and unpeeled whole canned pears is "crushed" if the unit has lost its normal shape and bears marks of crushing or is otherwise crushed not due to ripeness; and

(ii) A unit of halves, unpeeled halves, quarters, slices, whole, and unpeeled whole canned pears is "broken" if severed into definite parts; halves or unpeeled halves of canned pears that are slightly split from the edge to the core cavity or at the stem end are not considered broken. Portions equivalent to a full-size unit that has been broken are considered as one unit in determining the percentage by count.

(iii) "Crushed or broken" units are not considered defects in the style of diced or mixed pieces of irregular sizes and shapes of canned pears nor in the styles of halves, unpeeled halves, and mixed pieces of irregular sizes and shapes of canned "solid-pack" pears.

(3) "Stem" means an entire or partial external stem, whether or not attached, and is considered a defect in the applicable style of halves, unpeeled halves, quarters, sliced, diced, or mixed pieces of irregular sizes and shapes.

(4) "Cored and stemmed" means the removal of the calyx and seed cell cavity and, if applicable, the removal of the interior stem. "Stemming" refers to the removal of the interior stem.

(5) The degrees of trimming in the various styles of canned pears have the following meanings for the applicable styles:

(i) *Halves canned pears.* (*a*) "Insignificantly trimmed" means that the unit is trimmed to preserve the normal shape of a half and that the unit

(*1*) Possesses smooth contours on the backs and edges and may possess slight indentations or slight knife marks on the backs and edges that are insignificant in appearance;

(*2*) Is symmetrically cored and stemmed no deeper than necessary to remove neatly and cleanly the calyx, seed cell cavity, and interior stem;

(*3*) Possesses a distinct "bridge" or tie between the seed cell cavity and points where the calyx has been removed;

(*4*) Possesses an untrimmed face; and

(*5*) Is free from marks of "double stemming."

(*b*) "Slightly trimmed" means that the unit is trimmed but the normal shape of a half remains and that the unit

(*1*) Possesses reasonably smooth backs and edges and may possess significant indentation or significant knife marks on the backs and edges that do not materially affect the appearance of the unit;

(*2*) May be cored and stemmed deeper than necessary to remove the calyx, seed cell cavity, and interior stem or may not be symmetrically cored and stemmed but is cored and stemmed reasonably neat and reasonably clean;

(*3*) May lack a distinct "bridge" or tie between the seed cell cavity and points where the calyx has been removed;

(*4*) May possess slight trimming on the face; and

(*5*) May show marks of "double stemming."

(*c*) "Moderately trimmed" means that the unit may be noticeably trimmed but retains the resemblance of a pear half and that the unit

(*1*) May possess gouges or similar cuts on the backs or edges or may possess indentations or knife marks on the backs or edges that do not seriously affect the appearance of the unit;

(*2*) May be deeply cored and stemmed or may not be symmetrically, neatly, and cleanly cored and stemmed;

(*3*) May or may not have the interior stem removed;

(*4*) May possess moderate trimming on the face; and

(*5*) May show marks of "double stemming."

(*d*) "Seriously trimmed" means that the unit is trimmed on the backs and edges or that portions are cut across such surfaces or away from such units but that the shape of a pear half remains.

(ii) *Quarters; whole canned pears.* (*a*) "Insignificantly trimmed" means that the unit is trimmed to preserve the normal shape of the unit and that the unit

(*1*) Possesses smooth contours or well-defined edges, as applicable; and

(*2*) May possess slight indentations or slight knife marks that are insignificant in appearance.

(*b*) "Slightly trimmed" means that the unit is trimmed but the normal shape of the unit remains and that the unit

(*1*) Possesses reasonably smooth contours or reasonably well-defined edges, as applicable; and

(*2*) May possess significant indentations or significant knife marks that do not materially affect the appearance of the unit.

(*c*) "Moderately trimmed" means that the unit may be noticeably trimmed but retains the resemblance of a normal shape for the unit and that the unit

(*1*) May possess gouges or similar cuts on the surface or edges, as applicable, that do not seriously affect the appearance of the unit.

(*d*) "Seriously trimmed" means that the unit is trimmed on the surface or edges, as applicable, but that the applicable shape for the unit remains.

(iii) *Unpeeled halves canned pears.* (*a*) "Insignificantly trimmed" means that no more than insignificant trimming may be present on the edges or on the unpeeled surface and that the unit:

(*1*) May possess slight indentations or slight knife marks that are insignificant in appearance;

(*2*) Is symmetrically cored and stemmed no deeper than necessary to remove neatly and cleanly the calyx, seed cell cavity, and interior stem;

(*3*) Possesses a distinct "bridge" or tie between the seed cell cavity and points where the calyx has been removed;

(*4*) Possesses an untrimmed face; and

(*5*) Is free from marks of "double stemming."

(*b*) "Slightly trimmed" means that the unit

(*1*) May be slightly trimmed on the edges or on the unpeeled surface and may possess significant indentations or significant knife marks that do not materially affect the appearance of the unit;

(*2*) May be cored and stemmed deeper than necessary to remove the calyx, seed cell cavity, and interior stem or may not be symmetrically cored and stemmed but is cored and stemmed reasonably neat and reasonably clean;

(*3*) May lack a distinct "bridge" or tie between the seed cell cavity and points where the calyx has been removed;

(*4*) May possess slight trimming on the face; and

(*5*) May show marks of "double stemming."

(*c*) "Moderately trimmed" means that the unit may be noticeably trimmed on the edges or on the unpeeled surface but retains the resemblance of a pear half and that the unit

(*1*) May possess indentations or knife marks that do not seriously affect the appearance of the unit;

(*2*) May be deeply cored and stemmed or may not be symmetrically, neatly, and cleanly cored and stemmed;

(*3*) May or may not have the interior stem removed;

(*4*) May possess moderate trimming on the face; and

(*5*) May show marks of "double stemmining."

(*d*) "Seriously trimmed" means that the unit is trimmed on the edges or on the unpeeled surface or that portions are cut across or away from such surfaces but that the shape of a pear half remains.

(iv) *Unpeeled whole canned pears.* (*a*) "Insignificantly trimmed" means that no more than insignificant trimming may be present on the unpeeled surface and that the unit may possess slight indentations or slight knife marks that are insignificant in appearance.

(*b*) "Slightly trimmed" means that the unit may be slightly trimmed on the unpeeled surface and may possess significant indentations or significant knife marks that do not materially affect the appearance of the unit.

(*c*) "Moderately trimmed" means that the unit may be noticeably trimmed on the unpeeled surface but retains the resemblance of a whole pear and that the unit may possess indentations or knife marks that do not seriously affect the appearance of the unit.

(*d*) "Seriously trimmed" means that the unit is trimmed on the unpeeled surface but that the shape of a whole pear remains.

(b) (*A*) *classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that are practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that the canned pears are practically free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned pears:

(1) *Halves; quarters canned pears.* Not more than an average of ⅛ square inch of peel per 1 pound of net contents may be present; no stems nor loose or partially loose cores may be present; the units may be insignificantly trimmed but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken, slightly trimmed, moderately trimmed, or any combination thereof; and not more than 5 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, slightly trimmed, or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent and 5 percent by count: *Provided,* That in all containers comprising the sample such crushed, broken, slightly trimmed, and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 5 percent by count of the total number of units.

(2) *Whole canned pears.* Not more than an average of ⅛ square inch of peel per 1 pound of net contents may be present; the units may be insignificantly trimmed but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken, slightly trimmed, moderately trimmed, or any combination thereof; and not more than 5 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, slightly trimmed, or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent and 5 percent by count: *Provided,* That in all containers comprising the sample such crushed, broken, slightly trimmed, and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 5 percent by count of the total number of units.

(3) *Unpeeled halves canned pears.* No stems nor loose or partially loose cores may be present; the units may be insignificantly trimmed but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken, slightly trimmed, moderately trimmed, or any combination thereof; and not more than 5 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, slightly trimmed, or moderately trimmed, and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent and 5 percent by count: *Provided,* That in all containers comprising the sample such crushed, broken, slightly trimmed, and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 5 percent by count of the total number of units.

(4) *Unpeeled whole canned pears.* The units may be insignificantly trimmed but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be

crushed or broken, slightly trimmed, moderately trimmed, or any combination thereof; and not more than 5 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, slightly trimmed, or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent and 5 percent by count: *Provided*, That in all containers comprising the sample such crushed, broken, slightly trimmed, and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 5 percent by count of the total number of units.

(5) *Sliced canned pears.* Not more than an average of ⅛ square inch of peel per 1 pound of net contents may be present; no stems nor loose cores may be present; not more than 10 percent by count of the units may be crushed or broken; and not more than 5 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent and 5 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 5 percent by count of the total number of units.

(6) *Diced canned pears.* Not more than an average of ⅛ square inch of peel per 1 pound of net contents may be present; no stems nor loose cores may be present; and not more than 5 percent by count of the units may be blemished.

(c) *(B) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that are reasonably free from defects and mixed pieces of irregular sizes and shapes of canned pears that are at least reasonably free from defects may be given a score of 24 to 26 points. Canned pears that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the canned pears are reasonably free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned pears:

(1) *Halves; quarters canned pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose or partially loose core per 3 pounds of net contents may be present; the units may be insignificantly trimmed or slightly trimmed, or both, but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken or moderately trimmed or any combination thereof; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 10 percent by count of the total number of units.

(2) *Whole canned pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; the units may be insignificantly or slightly trimmed, or both, but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken or moderately trimmed or any combination thereof; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 10 percent by count of the total number of units.

(3) *Unpeeled halves canned pears.* Not more than 1 stem or 1 loose or partially loose core per 3 pounds of net contents may be present; the units may be insignificantly trimmed or slightly trimmed, or both, but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken or moderately trimmed or any combination thereof; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 10 percent by count of the total number of units.

(4) *Unpeeled whole canned pears.* The units may be insignificantly trimmed or slightly trimmed, or both, but none of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken or moderately trimmed or any combination thereof; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken or moderately trimmed and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken and moderately trimmed units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 10 percent by count of the total number of units.

(5) *Sliced canned pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose core per 3 pounds of net contents may be present; not more than 10 percent by count of the units may be crushed or broken; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken and one unit in a single container is permitted to be blemished if any of such units exceed the respective allowances of 10 percent by count: *Provided*, That in all containers comprising the sample such crushed and broken units do not exceed an average of 10 percent by count of the total number of units and that such blemished units do not exceed an average of 10 percent by count of the total number of units.

(6) *Diced canned pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose core per 3 pounds of net contents may be present; and not more than 10 percent by count of the units may be blemished.

(7) *Mixed pieces of irregular sizes and shapes of canned pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose or partially loose core per 3 pounds of net contents may be present; and not more than 10 percent by count of the units may be blemished. One unit in a single container is permitted to be blemished if such unit exceeds the allowance of 10 percent by count; *Provided*, That in all containers comprising the sample such blemished units do not exceed an average of 10 percent by count of the total number of units.

(d) *(B-SP) classification.* Halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that are at least reasonably free from defects for canned "solid-pack" pears may be given a score of 24 to 26 points. Canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade B Solid-pack or U. S. Choice Solid-pack, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects for canned 'solid-pack' pears" means that the canned "solid-pack" pears are reasonably free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned "solid-pack" pears.

(1) *Halves; unpeeled halves; mixed pieces of irregular sizes and shapes of canned "solid-pack" pears.* Not more than an average of ½ square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1

loose or partially loose core per 3 pounds of net contents may be present; and not more than 1 blemished unit per 1 pound of net contents may be present.

(e) *(C) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, or mixed pieces of irregular sizes and shapes of canned pears that are fairly free from defects may be given a score of 21 to 23 points. Canned pears that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned pears are fairly free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned pears:

(1) *Halves; quarters canned pears.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose or partially loose core per 1 pound of net contents may be present; the units may be insignificantly trimmed, slightly trimmed, moderately trimmed, or any combination thereof, but not more than 10 percent by count of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, one unit in a single container is permitted to be seriously trimmed, and one unit in a single container is permitted to be blemished, if any of such units exceed the respective allowances of 10 percent and 20 percent by count of the units: *Provided,* That in all containers comprising the sample such seriously trimmed units do not exceed an average of 10 percent by count of the total number of units and such blemished units do not exceed an average of 20 percent by count of the total number of units.

(2) *Whole canned pears.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; the units may be insignificantly trimmed, slightly trimmed, moderately trimmed, or any combination thereof, but not more than 10 percent by count of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, one unit in a single container is permitted to be seriously trimmed, and one unit in a single container is permitted to be blemished, if any of such units exceed the respective allowances of 10 percent and 20 percent by count of the units: *Provided,* That in all containers comprising the sample such seriously trimmed units do not exceed an average of 10 percent by count of the total number of units and such blemished units do not exceed an average of 20 percent by count of the total number of units.

(3) *Unpeeled halves canned pears.* Not more than 1 stem or 1 loose or partially loose core per 1 pound of net contents may be present; the units may be insignificantly trimmed, slightly trimmed, moderately trimmed, or any combination thereof, but not more than 10 percent by count of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, one unit in a single container is permitted to be seriously trimmed, and one unit in a single container is permitted to be blemished, if any of such units exceed the respective allowances of 10 percent and 20 percent by count of the units: *Provided,* That in all containers comprising the sample such seriously trimmed units do not exceed an average of 10 percent by count of the total number of units, and such blemished units do not exceed an average of 20 percent by count of the total number of units.

(4) *Unpeeled whole canned pears.* The units may be insignificantly trimmed, slightly trimmed, moderately trimmed, or any combination thereof, but not more than 10 percent by count of the units may be seriously trimmed; not more than 10 percent by count of the units may be crushed or broken; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken, one unit in a single container is permitted to be seriously trimmed, and one unit in a single container is permitted to be blemished, if any of such units exceed the respective allowances of 10 percent and 20 percent by count of the units: *Provided,* That in all containers comprising the sample such seriously trimmed units do not exceed an average of 10 percent by count of the total number of units and such blemished units do not exceed an average of 20 percent by count of the total number of units.

(5) *Slices.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose core per 1 pound of net contents may be present; not more than 10 percent by count of the units may be crushed or broken; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be crushed or broken if such unit exceeds the allowance of 10 percent by count of the units.

(6) *Diced canned pears.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose core per 1 pound of net contents may be present; and not more than 20 percent by count of the units may be blemished.

(7) *Mixed pieces of irregular sizes and shapes of canned pears.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose or partially loose core per 1 pound of net contents may be present; and not more than 20 percent by count of the units may be blemished. One unit in a single container is permitted to be blemished if such unit exceeds the allowance of 20 percent by count: *Provided,* That in all containers comprising the sample such blemished units do not exceed an average of 20 percent by count of the total number of units.

(f) *(C–SP) classification.* Halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that are fairly free from defects for canned "solid-pack" pears may be given a score of 21 to 23 points. Canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade C Solid-pack or U. S. Standard Solid-pack, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects for canned 'solid-pack' pears" means that the canned "solid-pack" pears are fairly free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned "solid-pack" pears:

(1) *Halves; unpeeled halves; mixed pieces of irregular sizes and shapes of canned "solid-pack" pears.* Not more than an average of 1 square inch of peel per 1 pound of net contents may be present; not more than 1 stem or 1 loose or partially loose core per 1 pound of net contents may be present; and not more than 2 blemished units per 1 pound of net contents may be present.

(g) *SStd and (SStd-SP) classification.* Canned pears or canned "solid-pack" pears which fail to meet the requirements of paragraphs (e) and (f) of this section may be given a score of 0 to 20 points and shall not be graded above the following stated grades, as applicable, regardless of the total score for the product (this is a limiting rule):

(1) Halves, quarters, whole canned pears shall not be graded above Substandard and may also be "Below Standard in Quality" for the applicable reasons:

Not well peeled.
Partly crushed or broken.
Unevenly trimmed.
Blemished.

(2) Unpeeled halves, unpeeled whole canned pears shall not be graded above Substandard and may also be "Below Standard in Quality" for the applicable reasons:

Partly crushed or broken.
Unevenly trimmed.
Blemished.

(3) Sliced, diced, mixed pieces of irregular sizes and shapes canned pears shall not be graded above Substandard and may also be "Below Standard in Quality" for the applicable reasons:

Not well peeled.
Blemished.

(4) Canned "solid-pack" pears shall not be graded above Substandard Solid-pack.

§ 52.1625 *Character*—(a) *General.* The factor of character refers to the degree of ripeness, the texture, and tenderness of the product.

(b) *(A) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that possess a good character may be given a score of 27 to 30 points. "Good character" has the following meanings with respect to the various styles of canned pears:

(1) *Halves, unpeeled halves, quarters canned pears.* The units possess a texture typical of properly and uniformly ripened pears that are properly processed; the texture is fleshy and free from noticeable graininess or toughness; the units are tender; the units are uniformly intact and pliable but firm enough to possess well-defined edges with no visible breaking down of the flesh; and not more than 10 percent by count of the units may possess a reasonably good character. One unit in a container is permitted to have a reasonably good character if one unit exceeds the allowance of 10 percent by count: *Provided,* That in all containers comprising the sample, the units with reasonably good character do not exceed an average of 10 percent by count of the total number of units.

(2) *Whole, unpeeled whole canned pears.* The units possess a texture typical of properly and uniformly ripened pears that are properly processed; the texture is fleshy and free from noticeable graininess or toughness; the units are uniformly intact and firm with no visible breaking down of the flesh; and not more than 10 percent by count of the units may possess a reasonably good character. One unit in a container is permitted to have a reasonably good character if one unit exceeds the allowance of 10 percent by count: *Provided,* That in all containers comprising the sample the units with reasonably good character do not exceed an average of 10 percent by count of the total number of units.

(3) *Slices; diced canned pears.* The product generally possesses a texture typical of properly and uniformly ripened pears that are properly prepared and processed and not more than 10 percent by weight of the drained pears may be disintegrated or mushy.

(c) *(B) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, or unpeeled whole canned pears that possess a reasonably good character and mixed pieces of irregular sizes and shapes of canned pears that possess at least a reasonably good character may be given a score of 24 to 26 points. Canned pears that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" has the following meanings with respect to the following styles of canned pears:

(1) *Halves, unpeeled halves, quarters, mixed pieces of irregular sizes and shapes of canned pears.* The units possess a texture typical of properly ripened pears that are properly processed; the units may possess a texture of moderate graininess; the units are reasonably tender or the tenderness may be variable within the unit; the units may be slightly firm or slightly ragged with slightly frayed edges or slightly soft but are not mushy; and not more than 10 percent by count of the units may possess a fairly good character. One unit in a container is permitted to have a fairly good character if one unit exceeds the allowance of 10 percent by count: *Provided,* That in all containers comprising the sample the units with fairly good character do not exceed an average of 10 percent by count of the total number of units.

(2) *Whole, unpeeled whole canned pears.* The units possess a texture typical of properly ripened pears that are properly processed; the units may possess a texture of moderate graininess; the units are reasonably tender or the tenderness may be variable within the unit; the units may be slightly firm or slightly ragged or slightly soft but are not mushy; and not more than 10 percent by count of the units may possess a fairly good character. One unit in a container is permitted to have a fairly good character if one unit exceeds the allowance of 10 percent by count: *Provided,* That in all containers comprising the sample the units with fairly good character do not exceed an average of 10 percent by count of the total number of units.

(3) *Slices, diced canned pears.* The product generally possesses a texture typical of properly ripened pears that are properly prepared and processed and not more than 15 percent by weight of the drained pears may be disintegrated or mushy.

(d) *B-SP classification.* Halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess at least a reasonably good character for canned "solid-pack" pears may be given a score of 24 to 26 points. Canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade B Solid-pack or U. S. Choice Solid-pack, regardless of the total score for the product (this is a limiting rule). "Reasonably good character for canned 'solid-pack' pears" has the following meaning with respect to the styles of canned "solid-pack" pears:

(1) *Halves; unpeeled halves; mixed pieces of irregular sizes and shapes of canned "solid-pack" pears.* The product generally possesses a texture of properly ripened pears that are properly processed as "solid-pack" pears; the texture may be of moderate graininess or variable in tenderness or may be soft; not less than 80 percent by weight of the drained pears are in reasonably intact units and the balance may be mushy or consist of units with hard-calyx ends.

(e) *(C) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, or mixed pieces of irregular sizes and shapes of canned pears that possess a fairly good character may be given a score of 21 to 23 points. Canned pears that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" has the following meanings with respect to the following styles of canned pears:

(1) *Halves, unpeeled halves, quarters, mixed pieces of irregular sizes and shapes of canned pears.* The units possess a texture of properly processed pears which may be variable; the units may possess a texture of marked graininess; the units may be lacking uniformity of tenderness; the units may be markedly firm or markedly ragged with frayed edges or may be soft; and not more than 10 percent by weight of the drained pears may be mushy or consist of units with hard-calyx ends or units that are not tender.

(2) *Whole, unpeeled whole canned pears.* The units possess a texture of properly processed pears which may be variable; the units may possess a texture of marked graininess; the units may be lacking uniformity of tenderness; the units may be markedly firm or markedly ragged or soft; and not more than 10 percent by count of the units may be mushy or consist of units with hard-calyx ends or units that are not tender. One unit in a container is permitted to be mushy or possess hard-calyx ends or not tender: *Provided,* That in all containers comprising the sample, all of such units do not exceed an average of 10 percent by count of the total number of units.

(3) *Slices; diced canned pears.* The product generally possesses a texture typical of properly prepared and processed pears and not more than 20 percent by weight of the drained pears may be disintegrated or mushy.

(f) *(C-SP) classification.* Halves, unpeeled halves, or mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that possess a fairly good character may be given a score of 21 to 23 points. Canned "solid-pack" pears that fall into this classification shall not be graded above U. S. Grade C Solid-pack or U. S. Standard solid-pack regardless of the total score for the product (this is a limiting rule). "Fairly good character for canned 'solid-pack' pears" has the following meaning with respect to the styles of canned "solid-pack" pears:

(1) *Halves; unpeeled halves; mixed pieces of irregular sizes and shapes of canned "solid-pack" pears.* The product generally possesses a texture of properly processed pears which may be variable; the texture may be of marked graininess or variable in tenderness or may be soft; not less than 60 percent by weight of the drained pears are in reasonably intact units and the balance may be mushy or consist of units with hard-calyx ends.

(g) *(SStd) classification.* Halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, and mixed pieces of irregular sizes and shapes of canned pears that fail to meet the requirements of paragraph (e) of this section or that are "not tender" may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule). Halves, unpeeled halves, quarters, slices, diced, whole, unpeeled whole, or mixed pieces of irregular sizes and shapes of canned pears that are "not tender" are also "Below Standard in Quality—Not Tender."

(h) *(SStd–SP) classification.* Halves, unpeeled halves, and mixed pieces of irregular sizes and shapes of canned "solid-pack" pears that fail to meet the requirements of paragraph (f) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard Solid-pack, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1626 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned pears, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1627 *Score sheet for canned pears.*

Size and kind of container	------
Container mark or identification	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Count	------
Drained weight (ounces)	------
Solid-pack ( ) Spiced ( )	------
If in a liquid packing medium:	
Brix measurement	------
Sirup designation (Extra heavy, heavy, etc.)	------
Style (Halves) (Quarters) (Whole) etc.	------

Factors		Score points		
Color	20	(A)	18-20	
		(B)	16-17	
		(Mxd Pcs) & (B-SP)[1]	16-17	
		(C) and (C-SP)[1]	14-15	
		(SStd) & (SStd-SP)[1]	0-13	
Uniformity of size and symmetry.	20	(A)	18-20	
		(B)	16-17	
		(C)	14-15	
		(SStd)[1]	0-13	
Absence of defects.	30	(A)	27-30	
		(B) and (B-SP)[1]	24-26	
		(C) and (C-SP)[1]	21-23	
		(SStd) & (SStd-SP)[1]	0-20	
Character	30	(A)	27-30	
		(B) and (B-SP)	[1]24-26	
		(C) and (C-SP)	[1]21-23	
		(SStd) & (SStd-SP)[1]	0-20	
Total score	100			
Normal flavor and odor				------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED FIELD PEAS AND CANNED BLACK-EYE PEAS[1]

IDENTITY AND GRADES

§ 52.1641 *Identity.* (a) "Canned field peas" means canned field peas as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

(b) "Canned black-eye peas" means canned black-eye peas as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

(c) "Canned peas" means canned field peas or canned black-eye peas.

(d) "Snap" or "snaps" means a piece or pieces of immature unshelled pods.

(e) "Canned peas without snaps" means canned peas which do not contain immature unshelled pods or pieces thereof.

(f) "Canned peas with snaps" means canned peas which contain pieces of immature unshelled pods.

(g) "Unit" means an individual field pea or black-eye pea or a piece of immature unshelled pod of either.

§ 52.1642 *Grades of canned peas.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned peas that possess similar varietal characteristics; that possess a normal flavor and odor; that are fairly young; that are practically free from defects; that possess at least a fairly good color; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned peas that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a fairly good color; that are nearly mature; that are fairly free from defects; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned peas that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.1643 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned peas be filled with field peas or black-eye peas as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.1644 *Recommended drained weight.* The drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned peas is determined by emptying the contents of the container upon a No. 8 sieve of proper diameter and allowing to drain for 2 minutes. A sieve 8 inches in diameter is used for the No. 2½ size can (401 x 411) and smaller sizes; and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. 1

[Recommended minimum drained weight, in ounces, of field peas or black-eye peas, including snaps when canned with snaps]

Container size or designation:	Ounces
No. 1 (Picnic)	7
No. 1 Tall	10½
No. 300	9¼
No. 303	11
No. 2	13¼
No. 10	72

FACTORS OF QUALITY

§ 52.1645 *Ascertaining the grade.* (a) The grade of canned peas may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings of the factors of color, absence of defects, and character.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	Points
Color	20
Absence of defects	40
Character	40
Total score	100

(c) "Normal flavor and odor" means that the canned peas are free from objectionable flavors and objectionable odors of any kind.

§ 52.1646 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "15 to 20 points" means 15, 16, 17, 18, 19, or 20 points).

§ 52.1647 *Color—*(a) *(A) classification.* Canned peas that possess a good color may be given a score of 15 to 20 points. "Good color" means that the canned peas possess a fairly uniform color and are typical of fairly young field peas or black-eye peas of similar varietal characteristics.

(b) *(C) classification.* Canned peas that possess a fairly good color may be given a score of 10 to 14 points. "Fairly good color" means that the canned peas possess a color that may be variable and typical of nearly mature field peas or black-eye peas of similar varietal characteristics.

(c) *(SStd) classification.* Canned peas that are definitely off color for any reason or fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 9 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1648 *Absence of defects—*(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, from loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, mashed or broken units, and units blemished by pathological injury, insect injury, or other means.

(1) "Extraneous vegetable matter" means hulls or pieces of hulls, unshelled pods or pieces of unshelled pods (except in peas canned with snaps), leaves,

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

stems and other similar vegetable matter.

(2) "Mashed or broken" means seriously crushed so that the unit has lost its original conformation or is broken to the extent that a cotyledon or portion thereof has become separated from the unit.

(3) "Blemished" means discolored or spotted by pathological injury, insect injury, or other means to such an extent that the appearance or eating quality of the unit is materially affected.

(b) (*A*) *classification*. Canned peas that are practically free from defects may be given a score of 35 to 40 points. "Practically free from defects" means that for each 12 ounces drained weight of units there may be present not more than 2 pieces of extraneous vegetable matter, and the combined weight of all loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, and mashed or broken units does not exceed 5 percent, and the weight of blemished units does not exceed 2 percent of the drained weight of the canned peas.

(c) (*C*) *classification*. If the canned peas are fairly free from defects, a score of 30 to 34 points may be given. Canned peas that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that for each 12 ounces drained weight of units there may be present not more than 4 pieces of extraneous vegetable matter, and the combined weight of all loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, and mashed or broken units does not exceed 10 percent, and the weight of blemished units does not exceed 6 percent of the drained weight of the canned peas.

(d) (*SStd*) *classification*. Canned peas that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 29 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1649 *Character*—(a) *General*. This factor refers to the tenderness and maturity of the canned peas.

(b) (*A*) *classification*. Canned peas that are fairly young may be given a score of 35 to 40 points. "Fairly young" means that the units are tender and in a fairly early stage of maturity.

(c) (*C*) *classification*. If the field peas or black-eye peas are nearly mature, a score of 30 to 34 points may be given. Canned peas that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Nearly mature" means that the units are fairly tender and may be mealy but not hard.

(d) (*SStd*) *classification*. Canned peas that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 29 points, and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1650 *Tolerances for certification of officially drawn samples*. (a) When certifying samples that have been officially drawn and which represent a specific lot of canned peas without snaps or canned peas with snaps, the grade for such lot will be determined by averaging the total scores of all containers if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total score, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgaed under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1651 *Score sheet for canned field peas and canned black-eye peas*.

Container size			
Container code or marking			
Label			
Net weight (ounces)			
Vacuum (inches)			
Drained weight (ounces)			
Style			
Factors	**Score Points**		
Color	20	(A) 15-20 (C) 10-14 (D)[1] 0-9	
Absence of defects	40	(A) 35-40 (C)[1] 30-34 (D)[1] 0-29	
Character	40	(A) 35-40 (C)[1] 30-34 (D)[1] 0-29	
Total score	100		
Grade			
Normal flavor and odor			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN FIELD PEAS AND FROZEN BLACK-EYE PEAS[1]

PRODUCT DESCRIPTION, DEFINITIONS, AND GRADES

§ 52.1661 *Product description*. "Frozen field peas" is the product prepared from the clean and sound immature seed of the field pea plant (Vigna sinensis) by shelling, sorting, washing, and blanching, and is then frozen and maintained at temperatures necessary for the preservation of the product. "Frozen black-eye peas" is the product prepared from the clean and sound immature seed of the black-eye pea plant (Vigna sinensis) by shelling sorting, washing, and blanching, and is then frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.1662 *Definitions*. (a) "Frozen peas" means frozen field peas or frozen black-eye peas.

(b) "Unit" means an individual field pea or black-eye pea in frozen peas.

§ 52.1663 *Grades of frozen peas*. (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen peas that possess similar varietal characteristics; that possess a good flavor and odor; that possess a good character; that possess a good typical color; that are practically free from defects; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen peas that possess similar varietal characteristics; that possess a reasonably good flavor and odor; that possess a reasonably good character; that possess a reasonably good typical color; that are reasonably free from defects; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen peas that fail to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.1664 *Ascertaining the grade*. (a) The grade of frozen peas may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The score for the factors of color and absence of defects in frozen peas is determined after thawing so that the product is substantially free from ice crystals and can be handled as individual units. A representative sample of the product is cooked for examination with respect to character and for flavor and odor.

(d) "Good flavor and odor" means that the product after cooking has a good characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1665 *Ascertaining the rating for the factors which are scored*. The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive for example, "15 to 20 points" means 15, 16, 17, 18, 19, or 20 points).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.1666 *Color*—(a) *(A) classification.* Frozen peas that possess a good typical color may be given a score of 15 to 20 points. "Good typical color" means that the frozen peas possess a color that is typical of reasonably young field peas or black-eye peas of similar varietal characteristics, that possess not less than 50 percent, by count, of peas which show at least a tinge of green color, and that there may be present not more than 5 percent, by weight, of field peas or black-eye peas which are of markedly different varietal colors.

(b) *(B) classification.* Frozen peas that possess a reasonably good typical color may be given a score of 10 to 14 points. Frozen peas that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good typical color" means that the frozen peas possess a color that is typical of fairly young field peas or black-eye peas of similar varietal characteristics and that there may be present not more than 5 percent, by weight, of field peas or black-eye peas which are of markedly different varietal colors.

(c) *(SStd) classification.* Frozen peas that are definitely off color for any reason or that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 9 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1667 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, from loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, broken units, and units blemished by pathological injury, insect injury, or other means.

(1) "Extraneous vegetable matter" means hulls or pieces of hulls, unshelled pods or pieces of unshelled pods, leaves, stems, and other similar vegetable matter.

(2) "Blemished" means discolored or spotted by pathological injury, insect injury, or other means to such an extent that the appearance or eating quality of the unit is materially affected.

(b) *(A) classification.* Frozen peas that are practically free from defects may be given a score of 35 to 40 points. "Practically free from defects" means that for each 16 ounces of units, or per package if less than 16 ounces, there may be present not more than 2 pieces of extraneous vegetable matter and the combined weight of all loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, and broken units does not exceed 5 percent, and the weight of blemished units does not exceed 3 percent of the weight of the frozen peas.

(c) *(B) classification.* If the frozen peas are reasonably free from defects, a score of 30 to 34 points may be given. Frozen peas that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that for each 16 ounces of units, or per package if less than 16 ounces, there may be present not more than 4 pieces of extraneous vegetable matter and the combined weight of all loose skins and pieces of skins, loose cotyledons and pieces of cotyledons, and broken units does not exceed 10 percent, and the weight of the blemished units does not exceed 5 percent of the weight of the frozen peas.

(d) *(SStd) classification.* Frozen peas that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 29 points. The product shall not be graded above Substandard if the weight of blemished units exceeds 5 percent of the weight of the frozen peas regardless of the total score for the product (this is a partial limiting rule).

§ 52.1668 *Character*—(a) *General.* This factor refers to the maturity of the field peas or blackeye peas and the tenderness of the units.

(b) *(A) classification.* Frozen peas that possess a good character may be given a score of 35 to 40 points. "Good character" means that the units are tender and in a reasonably young stage of maturity.

(c) *(B) classification.* If the field peas or black-eye peas possess a reasonably good character, a score of 30 to 34 points may be given. Frozen peas that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the units are reasonably tender and in a fairly young stage of maturity.

(d) *(SStd) classification.* Frozen peas that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1669 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen peas, the grade for such lot will be determined by averaging the total scores of all containers if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total score, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1670 *Score sheet for frozen field peas and frozen black-eye peas.*

Size and kind of container				------
Container mark or identification				------
Label				------
Net weight (ounces)				------
Factors	Score points			
Color	20	(A)	15-20	
		(B)	[1] 10-14	
		(SStd.)	[1] 0-9	
Absence of defects	40	(A)	35-40	
		(B)	[1] 30-34	
		(SStd.)	[2] 0-29	
Character	40	(A)	35-40	
		(B)	[1] 30-34	
		(SStd.)	[1] 0-29	
Total score	100			
Grade				------
Flavor and odor				------

[1] Indicates limiting rule.
[2] Indicates partial limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CUCUMBER PICKLES[1]

PRODUCT DESCRIPTION, STYLES, GRADES, AND TYPES

§ 52.1681 *Product description.* Cucumber pickles means the pickled product prepared from fresh immature cucumbers (Cucumis Sativus) which have been cured by natural fermentation in a solution of common salt with or without the addition of dill herbs and processed or preserved in a liquid packing medium which may be seasoned with sugar or a combination of sugar and dextrose (refined corn sugar) or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose and corn sirup, or corn sirup solids, salt, a vinegar or vinegars, spices or flavoring or both, and onions or garlic or both, and with or without other seasoning or flavoring ingredients to give the product the flavor and characteristics of the respective type. Cucumber pickles may be processed or preserved with or without the addition of other pickled vegetables which have been cured as aforesaid.

§ 52.1682 *Styles of cucumber pickles.* (a) "Whole" or "whole pickles" means cucumber pickles consisting of whole cucumbers.

(b) "Cross cut," "slices" or "sliced" means cucumber pickles consisting of units irrespective of whether such units are cut at right angles to the longitudinal axis into units of approximately equal thickness or cut longitudinally into halves, quarters, eighths or into units with parallel surfaces.

(c) "Cut" or "cut pickles" means cucumber pickles (1) which are not uniform in size or shape or (2) which do not conform to any of the foregoing styles.

(d) "Finely cut" or "finely chopped pickles" means cucumber pickles which have been finely cut or finely chopped.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(e) "Unit" means an individual cucumber pickle or pickle ingredient or portion of either in cucumber pickles.

§ 52.1683 *Grades of cucumber pickles.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of cucumber pickles that possess: a practically uniform typical color; are practically free from defects; possess a good texture; possess a normal flavor and normal odor; and are of such quality with respect to uniformity of size and shape as to score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of cucumber pickles that possess: a fairly uniform typical color; are fairly free from defects; possess a fairly good texture; possess a normal flavor and normal odor; and are of such quality with respect to uniformity of size and shape as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of cucumber pickles that fail to meet the requirements of U. S. Grade C or U. S. Standard.

§ 52.1684 *Types of cucumber pickles.* The type of cucumber pickles is not incorporated in the grades of the finished product, since type of cucumber pickles is not a factor of quality for the purpose of these grades. The type of cucumber pickles is dependent upon the method of preparation and processing. Cucumber pickles are usually prepared and processed as any one of the following types:

(a) "Dills" or "dill pickles" are of two classifications:

(1) Genuine dills or genuine dill pickles consist of cucumber pickles prepared from fresh immature cucumbers cured by natural fermentation in a solution of common salt with dill herbs with or without dill flavoring in a liquid packing medium, with or without additional spices, spice flavorings, or other seasonings or flavoring ingredients. Dill herb and other herbs may be added. The packing medium contains not less than 0.6 gram of acid (calculated as lactic) per 100 milliliters.

(2) Processed dills or processed dill pickles consist of cucumber pickles prepared from fresh immature cucumbers cured by natural fermentation in a solution of common salt in a liquid packing medium containing dill flavored brine, a vinegar or vinegars, spices, spice flavoring, or other seasoning or flavoring ingredients. Dill herb and other herbs may be added. The packing medium contains not less than 0.6 gram of acid (calculated as acetic) per 100 milliliters.

(b) "Sour pickles" consist of sour cucumber pickles in a liquid packing medium to which has been added salt, a vinegar or vinegars, with or without the addition of spices, spice flavoring, or other seasoning or flavoring ingredients. The packing medium contains not less than 1.4 grams acid (calculated as acetic) per 100 milliliters nor more than 2.4 grams acid (calculated as acetic) per 100 milliliters.

(c) "Sweet pickles" consist of sweet cucumber pickles in a liquid packing medium to which has been added sugar or a combination of sugar and dextrose (refined corn sugar), or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose, and corn sirup or corn sirup solids, salt, a vinegar or vinegars, with or without the addition of spices, spice flavoring, or other seasoning or flavoring ingredients. The packing medium contains not more than 3.0 percent salt.

(d) "Mixed pickles" consist of mixed cucumber pickles which may be of any of the foregoing styles except finely cut or finely chopped cucumber pickles to which has been added onions and cut cauliflower with or without the addition of red peppers, pimientos, or pieces of red peppers or pimientos in a liquid packing medium with or without the addition of sugar or a combination of sugar and dextrose (refined corn sugar), or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose, and corn sirup or corn sirup solids, salt, a vinegar or vinegars, with or without the addition of spices, spice flavoring, and other seasoning or flavoring ingredients. Mixed pickles may contain ingredients in the following proportions:

	Percent by weight
Cucumbers	60 to 80
Cauliflower	10 to 30
Onions	5 to 10
Red peppers or pimientos	Optional ingredient

(1) Mixed pickles are of two classifications:

(i) Sour mixed pickles consist of mixed cucumber pickles in a liquid packing medium to which has been added salt, a vinegar or vinegars, with or without the addition of spices, spice flavoring, or other seasoning or flavoring ingredients. The packing medium contains not less than 1.4 grams acid (calculated as acetic) per 100 milliliters or more than 2.4 grams acid (calculated as acetic) per 100 milliliters.

(ii) Sweet mixed pickles consist of mixed cucumber pickles in a liquid packing medium to which has been added salt, a vinegar or vinegars, sugar or a combination of sugar and dextrose (refined corn sugar) or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose, and corn sirup or corn sirup solids with or without the addition of spices, spice flavoring, and other seasoning or flavoring ingredients. The packing medium may contain not more than 3.0 percent salt.

(e) "Chow chow" consists of chow chow cucumber pickles which may be of any of the foregoing styles, except finely cut or finely chopped cucumber pickles, to which has been added onions and cut cauliflower, with or without the addition of red peppers or pimientos, or pieces of red peppers or pimientos, in a sauce of proper consistency, with or without the addition of sugar or a combination of sugar and dextrose (refined corn sugar), or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose and corn sirup, or corn sirup solids, salt, a vinegar or vinegars, and mustard, with or without the addition of spices, spice flavoring, and other seasoning or flavoring ingredients. Chow chow may contain ingredients in the following proportions:

	Percent by weight
Cucumbers	60 to 80
Cauliflower	10 to 30
Onions	5 to 10
Red peppers or pimientos	Optional ingredient

(1) Chow chow is of two classifications:

(i) Sour chow chow consists of chow chow cucumber pickles in a sauce of proper consistency, to which has been added salt, a vinegar or vinegars, and mustard, with or without the addition of spices, spice flavoring, and other seasoning or flavoring ingredients.

(ii) Sweet chow chow consists of chow chow cucumber pickles in a sauce of proper consistency, to which has been added salt, a vinegar or vinegars, mustard, sugar or a combination of sugar and dextrose (refined corn sugar), or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose and corn sirup or corn sirup solids with or without the addition of spices, spice flavoring, and other seasoning or flavoring ingredients.

(f) "Sweet pickle relish" consists of finely cut or finely chopped sweet cucumber pickle relish, to which may be added cauliflower, onions, with or without the addition of green tomatoes, red peppers or pimientos, in a liquid packing medium with the addition of salt, a vinegar or vinegars, sugar or a combination of sugar and dextrose (refined corn sugar), or a combination of sugar and corn sirup or corn sirup solids, or a combination of sugar, dextrose and corn sirup or corn sirup solids, with or without the addition of spices, spice flavoring and other seasoning or flavoring ingredients. Sweet pickle relish may contain ingredients in the following proportions:

	Percent by weight
Cucumbers	60 to 100
Cauliflower [1]	10 to 30
Onions [1]	5 to 10
Green tomatoes	([2])
Red peppers or pimientos	Optional ingredient

[1] Optional.

[2] Optional—not to exceed 10% by weight when used in lieu of equal quantities of cauliflower.

The packing medium may contain not more than 3.0 percent salt.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.1685 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since the fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of cucumber pickles be filled as full as practicable without impairment of quality, that the product be entirely covered with the packing medium and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.1686 *Recommended minimum drained weight.* (a) The minimum drained weight recommendations in Table I are not incorporated in the grades of the finished product since drained weight as such, is not a factor of quality for the purpose of these grades.

(b) The drained weight of all types of cucumber pickles except chow chow pickles is determined by emptying the contents of the container upon a circular sieve of proper diameter, containing 8 meshes to the inch (0.097-inch square openings) and allowing to drain for two minutes. A sieve 8 inches in diameter is used for container one-quart size or less and a sieve 12 inches in diameter is used for containers or samples larger than one-quart size.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS, IN OUNCES, OF PICKLES

Container size or designation	Sour whole, cut, mixed, and dill pickles	Sweet whole, cut, and mixed pickles	Sweet pickle relish
Pint (16 ounces)	----------	11	14
Quart (32 ounces)	17	22	28
Gallon (128 ounces)	85	90	112
No. 2½ can	17	21	25¼
No. 10 can	72	76	94
No. 12 can	85	90	112

SIZES

§ 52.1687 *Sizes of cucumber pickles in whole cucumber pickles.* The size of any whole cucumber pickle is determined by measuring the shortest diameter transverse to the longitudinal axis at the thickest portion of the pickle and by measuring the distance from stem to blossom end.

§ 52.1688 *Sizes of cross cut or sliced cucumber pickles.* The size of any unit cut at right angles to the longitudinal axis is determined by measuring the shortest diameter of the surface of the unit. The size of any unit cut longitudinally is determined by measuring the longest distance parallel to the longitudinal axis.

FACTORS OF QUALITY

§ 52.1689 *Ascertaining the grade.* (a) The grade of cucumber pickles may be ascertained by considering, in addition to the foregoing requirements of the respective grade, the following factors: Color, uniformity of size and shape, absence of defects, and texture. The relative importance of each factor is expressed numerically on a scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Uniformity of size and shape	20
Absence of defects	30
Texture	30
Total	100

(b) "Normal flavor and normal odor" means that the cucumber pickles are free from objectionable flavors and objectionable odors of any kind.

§ 52.1690 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "16 to 20 points" means 16, 17, 18, 19, or 20 points).

§ 52.1691 *Color*—(a) *(A) classification.* Cucumber pickles that possess a practically uniform typical color may be given a score of 16 to 20 points. "Practically uniform typical color" means that the skin of the cucumber ingredient is practically free from bleached areas; that the skin of not more than 10 percent by weight of the cucumber ingredient may vary markedly from a typical yellow-green to green color; and that in mixed pickles, chow chow pickles and pickle relish, all of the pickle ingredients possess a practically uniform typical color for the respective ingredient.

(b) *(C) classification.* If the cucumber pickles possess a fairly uniform typical color, a score of 13 to 15 points may be given. Cucumber pickles that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly uniform typical color" means that the skin of the cucumber ingredient is fairly free from bleached areas; that the skin of not more than 25 percent by weight of the cucumber ingredient may vary markedly from a typical yellow-green to green color; and that in mixed pickles, chow chow pickles and pickle relish all of the pickle ingredients possess a fairly uniform typical color for the respective ingredient.

(c) *(SStd) classification.* Cucumber pickles that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 12 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1692 *Uniformity of size and shape*—(a) *(A) classification.* Cucumber pickles that are practically uniform in size and shape may be given a score of 17 to 20 points. "Practically uniform in size and shape" has the following meanings with respect to the various styles of cucumber pickles:

(1) *Whole pickles.* The pickles may vary moderately in size and shape and the diameter of the largest pickle, measured as aforesaid, does not exceed the diameter of the smallest pickle by more than 50 percent of the diameter of the smallest pickle.

(2) *"Cross cut," "slices" or "sliced" pickles.* The individual unit when cut at right angles to the longitudinal axis is not less than 3/16 inch nor more than 3/8 inch in thickness when measured at the thickest portion and the diameter of the largest unit, measured as aforesaid, is not more than 2 inches in diameter and the largest unit does not exceed the diameter of the smallest unit by more than 50 percent of the diameter of the smallest unit. When the units are cut longitudinally, such units may vary moderately in size and shape and the length of the longest slice, measured as aforesaid, does not exceed the length of the shortest slice by more than 50 percent of the length of the shortest slice. When cut longitudinally with parallel surfaces, the unit is not less than 3/16 inch nor more than 3/8 inch in thickness when measured at the thickest portion.

(3) *Cut pickles.* The weight of the largest unit does not exceed the weight of the smallest unit by more than four times the weight of the smallest unit. An occasional unit which is not representative of the general size of all the units of a respective pickle ingredient is excluded in determining size variation.

(4) *Finely cut or finely chopped pickles.* The pickle ingredients have been finely cut or chopped into units which may vary moderately in size.

(b) *(C) classification.* If the pickles are fairly uniform in size and shape, a score of 13 to 16 points may be given. "Fairly uniform in size and shape" has the following meanings with respect to the various styles of cucumber pickles.

(1) *Whole pickles.* The pickles may vary considerably in size and shape and the diameter of the largest pickle, measured as aforesaid, is not more than twice the diameter of the smallest pickle.

(2) *"Cross cut," "slices" or "sliced" pickles.* The individual unit when cut at right angles to the longitudinal axis is not less than 3/16 inch nor more than 3/8 inch in thickness when measured at the thickest portion and the diameter of the largest unit, measured as aforesaid, is not more than 2 inches in diameter and the largest unit is not more than twice the diameter of the smallest unit. When the units are cut longitudinally, such units may vary considerably in size and shape and the length of the longest unit is not more than twice the length of the shortest unit. When cut longitudinally with parallel surfaces, the unit is not less than 3/16 inch nor more than 3/8 inch in thickness when measured at the thickest portion.

(3) *Cut pickles.* The largest unit weighs not more than twelve times the weight of the smallest unit. An occasional unit which is not representative of the general size of all the units of a respective pickle ingredient is excluded in determining size variation.

(4) *Finely cut or finely chopped pickles.* The pickle ingredients have been finely cut or chopped into units which may vary considerably in size.

(c) *(SStd) classification.* Cucumber pickles that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 12 points and shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.1693 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, sand, or silt; from attached stems, curved pickles, markedly off-shaped pickles, end cuts, units damaged by mechanical injury, units blemished by brown or black discoloration, by scars, pathological injury or insect injury and units blemished by other means.

(1) "Curved pickles" are whole pickles that are slightly curved or very curved.

(i) "Slightly curved" pickles are pickles that are curved at an angle of not more than 35 degrees, and

(ii) "Very curved" pickles are pickles that are curved at an angle of more than 35 degrees but not more than 60 degrees.

(2) "Markedly off-shaped" pickles are pickles that are curved at more than a 60-degree angle, "nubbins" and other badly crooked or misshapen pickles.

(3) "Grit, sand, or silt" means any particle of earthly material whether in the liquid packing medium or imbedded in the skin or flesh of the pickle.

(4) "Blemished unit" means blemished to such an extent that the appearance or eating quality of the unit is materially affected.

(5) "Seriously blemished" means blemished to such an extent that the appearance or eating quality of the unit is seriously affected.

(6) "Damaged by mechanical injury" means crushed or broken units or units damaged by other means to such an extent that the appearance or eating quality of the unit is seriously affected.

(7) "Stem" means any attached stem longer than ¼ inch.

(8) "End cut" or "end cuts" means any portion of a whole pickle obtained in the preparation of cross cut or sliced pickles possessing only one cut surface.

(b) (*A*) *classification*. Cucumber pickles that are practically free from defects may be given a score of 26 to 30 points. "Practically free from defects" means that the product contains no grit, sand, or silt that affects the eating quality or appearance of the product, the combined weight of all other defects and defective units does not exceed 25 percent of the total weight of the units, and that:

(1) Not more than 20 percent by count of all the pickles in whole pickles may consist of curved pickles and of such 20 percent not more than ¼ thereof may consist of very curved pickles;

(2) Not more than 5 percent by count of all the pickles in whole pickles may consist of markedly off-shaped pickles;

(3) Not more than 20 percent by count of all the pickles in whole pickles may have attached stems, and of such 20 percent not more than one-half thereof may have attached stems that exceed one-half inch in length.

(4) Not more than 10 percent by count of all the units may be blemished units, and of such 10 percent not more than one-half thereof may consist of seriously blemished units;

(5) Not more than 5 percent by weight of all the units may be end cuts in cross cut or sliced pickles; and

(6) Not more than 10 percent by count of all the units may be damaged by mechanical injury.

(c) (*C*) *classification*. If the cucumber pickles are fairly free from defects, a score of 22 to 25 points may be given. Cucumber pickles that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the product may contain a trace of grit, sand, or silt that does not materially affect the eating quality or appearance of the product, the combined weight of all other defects and defective units does not exceed 40 percent of the weight of the units, and that:

(1) Not more than 35 percent by count of all the pickles in whole pickles may consist of curved pickles and of such 35 percent not more than three-sevenths thereof may consist of very curved pickles;

(2) Not more than 10 percent by count of all the pickles in whole pickles may consist of markedly off-shaped pickles;

(3) Not more than 35 percent by count of all the pickles in whole pickles may have attached stems and of such 35 percent not more than four-sevenths thereof may have attached stems that exceed one-half inch in length.

(4) Not more than 20 percent by count of all the units may be blemished units and of such 20 percent not more than one-half thereof may consist of seriously blemished units:

(5) Not more than 15 percent by weight of all the units may be end cuts in cross cut or sliced pickles, and

(6) Not more than 25 percent by count of all the units may be damaged by mechanical injury.

(d) (*SStd*) *classification*. Cucumber pickles that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above U. S. Grade D or Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1694 *Texture*—(a) *General*. The factor of texture refers to the firmness, crispness, and the condition of the cucumber pickles.

(1) "Chalky white areas" means opaque chalky white areas exceeding ⅕ of the diameter of the pickle. Very pale green to translucent white areas should not be classified as chalky white.

(b) (*A*) *classification*. Cucumber pickles that possess a good texture may be given a score of 26 to 30 points. "Good texture" means that the cucumber pickles are firm and crisp for the respective style or type of pack, are practically free from seedy pickles, and that:

(1) Not more than 10 percent by count of all the units in cucumber pickles may be slightly shriveled, soft, or slippery;

(2) Not more than 10 percent by count of all the units in cucumber pickles may be hollow pickles; and

(3) Not more than 10 percent by count of all the units in cucumber pickles may have chalky white areas.

(c) (*C*) *classification*. If the cucumber pickles possess a fairly good texture, a score of 22 to 25 points may be given. Cucumber pickles that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard regardless of the total score for the product (this is a limiting rule). "Fairly good texture" means that the cucumber pickles are fairly firm and crisp, for the respective style and type of pack, are fairly free from seedy pickles, and that:

(1) Not more than 20 percent by count of all the units in cucumber pickles may be markedly shriveled, soft, or slippery;

(2) Not more than 20 percent by count of all the units in cucumber pickles may be hollow pickles; and

(3) Not more than 20 percent by count of all the units in cucumber pickles may have chalky white areas.

(d) (*SStd*) *classification*. Cucumber pickles that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1695 *Tolerance for certification of officially drawn samples*. (a) When certifying samples that have been officially drawn and which represent a specific lot of cucumber pickles, the grade for such lot will be determined by averaging the total scores of all the containers comprising the sample if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all the containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1696 *Score sheet for cucumber pickles*. The following score sheet may be used to summarize the factors determining the various grades:

Size and kind of container	------
Container code or marking	------
Label	------
Net weight (in ounces)	------
Vacuum (in inches)	------
Drained weight (in ounces)	------
Style	------
Type	------
Density of sirup (° Baume or ° Brix)	------
Acidity—grams per 100 ml	------
Salt (% NaCl)	------
Size count (if whole)	------
Ingredients (if mixed or chow chow): ----% Cucumbers. ----% Cauliflower. ----% Onions. ----% Peppers.	

Factors	Score points			
Color	20	(A)	16-20	
		(C)	[1]13-15	
		(D)	[1]0-12	
Uniformity of size and shape.	20	(A)	17-20	
		(C)	13-16	
		(D)	[1]0-12	
Absence of defects	30	(A)	26-30	
		(C)	[1]22-25	
		(D)	[1]0-21	
Texture	30	(A)	26-30	
		(C)	[1]22-25	
		(D)	[1]0-21	
Total score	100			

Normal flavor and odor	------
Grade	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PINEAPPLE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1711 *Product description.* Canned pineapple is prepared from the properly matured fruit of the pineapple plant (Ananas sativus or Ananas comosus) which fruit is washed, peeled, cored, and trimmed; is packed with or without packing media; is packed with or without the addition of sweetening ingredients; and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.1712 *Styles of canned pineapple.* (a) "Sliced" or "slices" of pineapple consist of whole, practically unbroken slices of pineapple that have been cut approximately at right angles to the vertical axis of the fruit.

(b) "Half sliced" or "half slices" of pineapple are portions of slices of pineapple that are matched in size so that two portions are approximately equivalent to a slice.

(c) "Broken sliced" or "broken slices" of pineapple consist of varying sized portions of slices which have approximately the same measurement along the radial axis. "Radial axis" means the measurement along the radius from the inside arc to the outside arc.

(d) "Tidbits" of pineapple are small, wedge-shaped sections cut from slices or portions of slices of pineapple. The approximate measurements of such sectors are: (1) Length of outside arc, more than ⅜ inch but not more than ¾ inch; (2) thickness, more than 5⁄16 inch but not more than ½ inch; and (3) length (measured along the radius from the inside arc to the outside arc), more than 11⁄16 inch but not more than 1¼ inches.

(e) "Salad cuts" of pineapple are wedge-shaped sections cut from slices or portions of slices of pineapple. The approximate measurements of such sectors are: (1) length of outside arc—more than ¾ inch but not more than 2 inches; (2) thickness—more than 5⁄16 inch but not more than 9⁄16 inch; and (3) length (measured along the radius from the inside arc to the outside arc)—more than ⅝ inch but not more than 1¼ inches.

(f) "Chunks" of pineapple are large pieces of pineapple which may or may not be uniform in shape and do not exceed 1½ inches in any edge dimension. The approximate measurements of such pieces if wedge-shaped are: (1) length of outside arc—more than ¾ inch; (2) thickness—more than ½ inch; and (3) length (measured along the radius from the inside arc to the outside arc)—more than 11⁄16 inch. Such pieces that are not wedge-shaped may be predominantly of irregular shapes and do not have the appearance of any uniformly cut unit, such as cubes or tidbits.

(g) "Cubes" or "diced" pineapple consist of approximate cube-shaped pieces.

(h) "Vertical cuts" of pineapple are longitudinal sections cut from the prepared cylinder of pineapple.

(i) "Crushed" pineapple is pineapple that has been cut, shredded, or crushed into a comminuted form or into small, irregularly shaped pieces that do not have the appearance of any regularly cut unit. This style includes, but is not limited to, styles commonly called "crushed," "finely cut crushed," "coarse cut crushed," or similar designations, and may include any combinations thereof.

§ 52.1713 *Grades of canned pineapple.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that possesses a good color; that is practically free from defects; that possesses a good character; that possesses a good flavor and odor; and that is of such quality with respect to uniformity of size and shape as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; that possesses a fairly good flavor and odor; and that is of such quality with respect to uniformity of size and shape as to score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of half slices and broken slices of canned pineapple that possesses a fairly good color; that is fairly free from defects; that possesses a fairly good character; that possesses a fairly good flavor and odor; and that is of such quality with respect to uniformity of size and shape as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is the quality of sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that fails to meet the requirements of U. S. Grade B or U. S. Choice; or is the quality of half slices or broken slices of canned pineapple that fails to meet the requirements of U. S. Grade C or U. S. Standard.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.1714 *Recommended designations of liquid media and Brix measurements.* "Cut-out" requirements for liquid media or packing media are not incorporated in the grades of the finished product since sirup or any other liquid medium or a dry sweetening ingredient, as such, is not a factor of quality for the purpose of these grades.

(a) It is recommended that canned pineapple have the following indicated "cut-out" Brix measurement for the respective designation, which designations include, but are not limited to, the following:

Designation for all styles, except "crushed"	*Brix measurement*
Extra heavy sirup	22° or more, but not more than 35°.
Heavy sirup	18° or more, but less than 22°.
Light sirup	14° or more, but less than 18°.
Sweetened extra heavy	22° or more, but not more than 35°.
Sweetened heavy	18° or more, but less than 22°.

§ 52.1715 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container of canned pineapple be filled as full as practicable without impairment of quality and that the product and packing medium, if any, occupy not less than 90 percent of the volume of the container.

§ 52.1716 *Recommended minimum drained weight.* The minimum drained weight recommendations for the various styles in Table I, Table II, and Table III of this subpart are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purpose of these grades. The drained weight of canned pineapple is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch, ±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and the pineapple less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

COUNTS AND SIZES

§ 52.1717 *Recommended count and size of slices and half slices.* The recommended minimum number of slices and half slices, together with the recommended approximate thickness and approximate diameter for the respective counts per container, are shown in Table IV for the most common container sizes for these styles.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR SLICES, HALF SLICES, AND BROKEN SLICES

Container designation	Container size—over-all dimensions		Slices	Half slices	Broken slices
	Width	Height			
	Inches	*Inches*	*Ounces*	*Ounces*	*Ounces*
300 x 204	3	2 4/16	4	--------	--------
No. 1 flat	3 7/16	2 3/16	5¼	--------	--------
8 Z tall	2 11/16	3 4/16	--------	--------	--------
211 cylinder	2 11/16	4 14/16	--------	--------	--------
No. 1¼	4 1/16	2 7.5/16	9¼	9¼	--------
No. 2	3 7/16	4 9/16	12¾	12½	12½
No. 2½	4 1/16	4 11/16	18¼	18	18
No. 10	6 3/16	7	61½	--------	62½

TABLE II—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR CHUNKS, CUBES, AND VERTICAL CUTS

Container designation	Container size—over-all dimensions		Chunks	Cubes	Vertical cuts
	Width	Height			
	Inches	*Inches*	*Ounces*	*Ounces*	*Ounces*
300 x 204	3	2 4/16	4	4	--------
No. 1 flat	3 7/16	2 3/16	5	5	--------
8 Z tall	2 11/16	3 4/16	5	5	--------
211 cylinder	2 11/16	4 14/16	7¾	7¾	8¼
No. 1¼	4 1/16	2 7.5/16	9¼	9¼	--------
No. 2	3 7/16	4 9/16	12¾	12¾	12¾
No. 2½	4 1/16	4 11/16	18¼	18¼	18¼
No. 10	6 3/16	7	65¾	71¼	--------

TABLE III—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR TIDBITS, SALAD CUTS, AND CRUSHED

Container designation	Container size—over-all dimensions		Tidbits salad cuts	Crushed		
	Width	Height		Regular pack	Heavy pack	Solid pack
	Inches	*Inches*	*Ounces*	*Ounces*	*Ounces*	*Ounces*
300 x 204	3	2 4/16	4	4¾	--------	--------
No. 1 flat	3 7/16	2 3/16	5	6	--------	--------
8 Z tall	2 11/16	3 4/16	5	5¾	--------	--------
211 cylinder	2 11/16	4 14/16	7¾	9	--------	--------
No. 1¼	4 1/16	2 7.5/16	9¼	9¾	--------	--------
No. 2	3 7/16	4 9/16	12¾	13¾	--------	--------
No. 2½	4 1/16	4 11/16	18¼	19¾	--------	--------
No. 10	6 3/16	7	65¾	72¼	79	85½

TABLE IV

Container designation	Slices	Half slices	Approximate thickness of slices and half slices	Approximate diameter of slices and half slices	Approximate diameter of core holes
	Minimum per can	Minimum per can			
			Inches	*Inches*	*Inches*
300 x 204	4	--------	5/16	2½	1 1/16 to 1 3/8
No. 10	57	--------	5/16	2½	1 1/16 to 1 3/8
No. 1 flat	4	--------	5/16	2 15/16	1 1/16 to 1 3/8
No. 2	10	20	5/16	2 15/16	1 1/16 to 1 3/8
No. 10	50	--------	5/16	2 15/16	1 1/16 to 1 3/8
No. 1¼	4	8	7/16	3½	1¼ to 1 3/8
No. 2½	8	16	7/16	3½	1¼ to 1 3/8
No. 10	28	--------	7/16	3½	1¼ to 1 3/8

FACTORS OF QUALITY

§ 52.1718 *Ascertaining the grade.* (a) The grade of canned pineapple may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size and shape for the applicable style, absence of defects, and character. The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	Points
Color	20
Uniformity of size and shape	20
Absence of defects	30
Character	30
Total score	100

(b) "Good flavor and odor" means that the canned pineapple possesses a distinct and normal flavor for the variety; is characteristic of properly ripened and properly matured pineapple that has been properly prepared and processed; and is free from objectionable flavors and objectionable odors of any kind.

(c) "Fairly good flavor and odor" means that the canned pineapple may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1719 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.1720 *Color*—(a) (*A*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that possesses a good color may be given a score of 18 to 20 points. "Good color" means that the color of the pineapple units or mass is bright and is characteristic of properly ripened and properly matured pineapple of similar varietal characteristics; and that there may be slight variations in shades of such characteristic color in the units, within each unit, or within the mass, and that white radiating streaks may be present: *Provided*, That such variations do not materially affect the appearance of the product.

(b) (*B*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that possesses a reasonably good color may be given a score of 16 or 17 points. Canned pineapple that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the color of the pineapple units or mass may be slightly dull but is characteristic of properly matured pineapple of similar varietal characteristics; and that there may be marked variations in shades of such characteristic color in the units, within each unit, or within the mass, and that white radiating streaks may be present: *Provided*, That such variations do not seriously affect the appearance of the product.

(c) (*C*) *classification.* Half slices and broken slices of canned pineapple that possesses a fairly good color may be given a score of 14 or 15 points. Canned pineapple that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the color of the pineapple units may be slightly dull but is characteristic of properly matured pineapple of similar varietal characteristics; and that there may be marked variations in shades of such characteristic color in the units or within each unit, and that white radiating steaks may be present: *Provided*, That such variations do not seriously affect the appearance of the product.

(d) (*SStd*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that for any reason is off color or that fails to meet the requirements of paragraph (b) of this section, and half slices or broken slices of canned pineapple that for any reason is off color or that fails to meet the requirements of paragraph (c) of this section, may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1721 *Uniformity of size and shape*—(a) *General.* The factor of uniformity of size and shape is not based on any detailed requirements and is not scored for the style of crushed pineapple; the other three factors (color, absence of defects, and character) are scored and the total is multiplied by 100 and divided by 80, dropping any fractions to determine the total score for canned crushed pineapple:

(b) (*A*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, or vertical cuts of canned pineapple that is practically uniform in size and shape may be given a score of 18 to 20 points. "Practically uniform in size and shape" has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* The diameter of the slice with the longest diameter does not exceed the diameter of the slice with the shortest diameter by more than 1/16 inch.

(i) The thickness of the slice with the widest thickness at the circumference does not exceed the thickness of the slice with the most narrow thickness at the circumference by more than 3/32 inch.

(ii) The maximum radial axis of any slice does not exceed the minimum radial axis of the same slice by more than 1/8 inch. "Radial axis" means the measurement along the radius from the inside arc to the outside arc.

(2) *Tidbits.* Not more than 10 percent by weight of the units may fail to conform to any one or more of the following dimensions:

(i) Length of outside arc—more than 3/8 inch but not more than ¾ inch;

(ii) Thickness—more than 5/16 inch but not more than ½ inch;

(iii) Length (measured along the radius from the inside arc to the outside arc)—more than 11/16 inch but not more than 1¼ inches.

(3) *Salad cuts.* Not more than 10 percent by weight of the units may fail to conform to any one or more of the following dimensions:

(i) Length of outside arc—more than ¾ inch but not more than 2 inches;

(ii) Thickness—more than 5/16 inch but not more than 15/16 inch;

(iii) Length (measured along the radius from the inside arc to the outside arc)—more than ⅝ inch but not more than 1¼ inches.

(4) *Chunks.* (i) If predominantly wedge-shaped or if predominantly of a similar distinct shape, none of the pieces may exceed 1½ inches in any edge dimension and not less than an aggregate of 90 percent by weight of the units consist of pieces which weigh more than 3/16 of an ounce each and exceed at least one of the following dimensions:

(*a*) Length of outside arc—¾ inch;

(*b*) Thickness—½ inch;

(*c*) Length (measured along the radius from the inside arc to the outside arc)—11/16 inch;

or (ii) if predominantly of irregular sizes and shapes, none of the pieces may exceed 1½ inches in any edge dimension and not less than 90 percent by weight of the units consist of pieces which weigh more than 3/16 of an ounce each.

(5) *Cubes.* Not more than 10 percent by weight of the units may consist of pieces which weigh more than 3/16 of an ounce each, are more than ¾ inch in greatest edge dimension, or pass through a 5/16-inch square opening.

(6) *Vertical cuts.* The units are of substantially equal length and not more than 10 percent by count of the units, or not more than 1 unit in a container of less than 10 units, may be less than ¾ inch or more than 1¼ inches in the longest dimension edge other than any longitudinal measurement.

(b) (*B*) *classification.* If the sliced, tidbits, salad cuts, chunks, cubes, or vertical cuts canned pineapple is reasonably uniform in size and shape, a score of 16 or 17 points may be given. "Reasonably uniform in size and shape" has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* The diameter of the slice with the longest diameter does not exceed the diameter of the slice with the shortest diameter by more than ⅛ inch.

(i) The thickness of the slice with the widest thickness at the circumference does not exceed the thickness of the slice with the most narrow thickness at the circumference by more than ⅛ inch.

(ii) The maximum radial axis of any slice does not exceed the minimum radial axis of the same slice by more than ¼ inch. "Radial axis" means the measurement along the radius from the inside arc to the outside arc.

(iii) The ratio of the weight of the largest slice to the weight of the smallest slice does not exceed 1.33.

(2) *Tidbits.* Not more than 20 percent by weight of the units may fail to conform to any one or more of the following dimensions:

(i) Length of outside arc—more than ⅜ inch but not more than ¾ inch;

(ii) Thickness—more than 5/16 inch but not more than ½ inch;

(iii) Length (measured along the radius from the inside arc to the outside arc)—more than 11/16 inch but not more than 1¼ inches.

(3) *Salad cuts.* Not more than 20 percent by weight of the units may fail to conform to any one or more of the following dimensions:

(i) Length of outside arc—more than ¾ inch but not more than 2 inches;

(ii) Thickness—more than 5/16 inch but not more than 15/16 inch;

(iii) Length (measured along the radius from the inside arc to the outside arc)—more than ⅝ inch but not more than 1¼ inches.

(4) *Chunks.* (i) If predominantly wedge-shaped or if predominantly of a similar distinct shape, none of the pieces may exceed 1½ inches in any edge dimension; not less than 85 percent by weight of the units consist of pieces which weight more than 3/16 of an ounce each; and not less than 80 percent by weight of the units exceed at least one of the following dimensions:

(*a*) Length of outside arc—¾ inch;

(*b*) Thickness—½ inch;

(*c*) Length (measured along the radius from the inside arc to the outside arc)—11/16 inch;

or (ii) if predominantly of irregular sizes and shapes, none of the pieces may exceed 1½ inches in any edge dimension and not less than 85 percent by weight of the units consist of pieces which weigh more than 3/16 of an ounce each.

(5) *Cubes.* Not more than 20 percent by weight of the units may consist of pieces which weigh more than 3/16 of an ounce each, are more than ¾ inch in greatest edge dimension, or pass through a 5/16-inch square opening.

(6) *Vertical cuts.* The units are of reasonably uniform length; not more than 20 percent by count of the units, or not more than one unit in a container of less than 5 units, may be less than ¾ inch or more than 1¼ inches in the longest dimension edge other than any longitudinal measurement; and the ratio of the weight of the largest vertical cut to the weight of the smallest vertical cut does not exceed 1.33.

(c) (*C*) *classification.* If the canned pineapple consists of half slices or broken slices that are fairly uniform in size and shape, a score of 14 or 15 points may be given. "Fairly uniform in size and shape" has the following meaning with respect to, and applies only to, the following styles:

(1) *Half slices.* Not more than an aggregate of 10 percent by count of the units, or not more than 1 unit in a container of less than 10 units, may consist of portions that are smaller or larger than an approximate half slice or may consist of portions that do not have approximately the same measurement at the radial axis but do have approximately the same thickness as contrasted with the measurements of the predominating half slices; and the ratio of the weight of the largest unit to the weight of the smallest approximate half slice does not exceed 1.66. "Radial axis" means the measurement along the radius from the inside arc to the outside arc.

(2) *Broken slices.* Not more than an aggregate of 10 percent by weight of the units may consist of portions that are smaller than one-fourth of a slice, may consist of portions that are larger than three-fourths of a slice, or may consist of portions that do not have approximately the same measurement at the radial axis but do have approximately the same thickness as contrasted with the measurements of the predominating broken slices. "Radial axis" means the measurement along the radius from the inside arc to the outside arc.

(d) (*SStd*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, or vertical cuts of canned pineapple that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule).

(e) Half slices or broken slices that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade C or Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.1722 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from units that are crushed or excessively trimmed or split for the applicable style; from units that are blemished or seriously blemished; and from any other defects which detract from the appearance or edibility of the product.

(1) "Crushed" means that a unit in sliced, half sliced, broken sliced, tidbits, salad cuts, chunks, or vertical cuts of canned pineapple has been seriously crushed so that the unit is not of normal shape.

(2) "Excessively trimmed" means that a unit in sliced, half sliced, broken sliced, or vertical cuts of canned pineapple has been so trimmed that it does not retain the apparent original conformation of the prepared unit. "Slight trimming" means that the trimming may be noticeable but does not affect the conformation of the units.

(3) "Split" means that a slice or half slice in sliced or half sliced pineapple is definitely severed from core hole to perimeter or that a vertical cut is completely divided into segments.

(4) "Blemished" means that the unit possesses any blemish (or combination of blemishes) which materially affects the appearance or edibility of the unit and includes, but is not limited to, any fruit eye or portion thereof which on the exposed portion exceeds the area of a circle 1/16 inch in diameter, brown spots, pieces of shell, bruised portions, and other similar injuries or blemishes.

(5) "Seriously blemished" means that the unit is blemished to the extent that the blemish or blemishes seriously affect the appearance or edibility of the unit and includes, but is not limited to, deep fruit eyes and serious brown spots.

(b) (*A*) *classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that is practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that the product is practically free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition, has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* Not more than 3 units in containers of more than 25 units or not more than 1 unit in containers of 25 units or less may be crushed; an occasional slice may be slightly trimmed but none of the slices are excessively trimmed; not more than 5 percent by count of the slices may be blemished or seriously blemished; and not more than 10 percent by count of the slices may be split in not more than 1 place. One slice in a single container is permitted to be blemished or seriously blemished or split if such slice exceeds the respective allowance of 5 percent or 10 percent by count: *Provided,* That in all containers comprising the sample such blemished or seriously blemished units do not exceed an average of 5 percent by count of the total number of units, and that such split units do not exceed an average of 10 percent by count of the total number of units.

(2) *Tidbits.* Not more than 3 units in containers of less than 150 units or not more than 2 percent by count of the units in containers of 150 or more units may be crushed; and not more than 5 percent by count of all the units may be blemished or seriously blemished but of such 5 percent not more than one-half thereof, or not more than 2½ percent by count of all the units, may be seriously blemished.

(3) *Salad cuts.* Not more than 2 units in containers of less than 100 units or not more than 2 percent by count of the units in containers of 100 or more units may be crushed; and not more than 5 percent by count of all the units may be blemished or seriously blemished but of such 5 percent not more than one-half thereof, or not more than 2½ percent by count of all the units, may be seriously blemished.

(4) *Chunks.* Not more than 3 units in containers of less than 70 units or not more than 5 percent by count of units in containers of 70 or more units may be crushed; and not more than 5 percent by count of all the units may be blemished or seriously blemished but of such 5 percent not more than one-half thereof, or not more than 2½ percent by count of all the units, may be seriously blemished.

(5) *Cubes.* Not more than 2 percent by weight of all the drained units may be blemished or seriously blemished but of such 2 percent not more than one-half thereof, or not more than 1 percent by weight of all the drained units, may be seriously blemished.

(6) *Vertical cuts.* Not more than 1 unit in a container may be crushed; an occasional vertical cut may be slightly trimmed but none of the vertical cuts are excessively trimmed; not more than 5 percent by count of the units may be blemished or seriously blemished; and not more than 10 percent by count of the vertical cuts may be split in not more than 1 place. One vertical cut in a single container is permitted to be blemished or seriously blemished or split if such vertical cut exceeds the respective allowance of 5 percent or 10 percent by count: *Provided,* That in all containers comprising the sample such blemished or seriously blemished units do not exceed an average of 5 percent by count of the total number of units, and that such split units do not exceed an average of 10 percent by count of the total number of units.

(7) *Crushed.* Not more than ½ percent by weight of the drained pineapple may be blemished or seriously blemished. In determining the weight of any blemished material, the weight of the entire piece which is blemished is included and the percentage based on the drained weight of the crushed pineapple.

(c) (*B*) *classification.* If the sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple is reasonably free from defects, a score of 24 to 26 points may be given. Canned pineapple that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the product is reasonably free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* Not more than 3 units in containers of more than 25 units or not more than 1 unit in containers of 25 units or less may be crushed; the slices may be slightly trimmed but none of the slices are excessively trimmed; not more than 12½ percent by count of the slices may be blemished or seriously blemished; and not more than 25 percent by count of the slices may be split in not more than 2 places per slice. One slice in a single container is permitted to be blemished or seriously blemished and 1 slice is permitted to be split if such slices exceed the respective allowance of 12½ percent by count and 25 percent by count: *Provided,* That in all containers comprising the sample such blemished or seriously blemished units do not exceed an average of 12½ percent by count of the total number of units, and that such split units do not exceed an average of 25 percent by count of the total number of units.

(2) *Tidbits.* Not more than 3 units in containers of less than 150 units or not more than 2 percent by count of the units in containers of 150 or more units may be crushed; and not more than 12½ percent by count of all the units may be blemished or seriously blemished but of such 12½ percent not more than one-half thereof, or not more than 6¼ percent by count of all the units, may be seriously blemished.

(3) *Salad cuts.* Not more than 2 units in containers of less than 100 units or not more than 2 percent by count of the units in containers of 100 or more units may be crushed; and not more than 12½ percent by count of all the units may be blemished or seriously blemished but of such 12½ percent not more than one-half thereof, or not more than 6¼ percent by count of all the units, may be seriously blemished.

(4) *Chunks.* Not more than 3 units in containers of less than 70 units or not more than 5 percent by count of units in containers of 70 or more units may be crushed; and not more than 12½ percent by count of all the units may be blemished or seriously blemished but of such 12½ percent not more than one-half thereof, or not more than 6¼ percent by count of all the units, may be seriously blemished.

(5) *Cubes.* Not more than 4 percent by weight of all the drained units may be blemished or seriously blemished but of such 4 percent not more than one-half thereof, or not more than 2 percent by weight of all the drained units, may be seriously blemished.

(6) *Vertical cuts.* Not more than 1 unit in a container may be crushed; the vertical cuts may be slightly trimmed but none of the vertical cuts are excessively trimmed; not more than 12½ percent by count of the vertical cuts may be blemished or seriously blemished; and not more than 25 percent by count of the vertical cuts may be split in not more than 2 places per cut. One vertical cut in a single container is permitted to be blemished or seriously blemished and 1 vertical cut is permitted to be split if such cuts exceed the respective allowance of 12½ percent by count and 25 percent by count: *Provided,* That in all containers comprising the sample such blemished or seriously blemished units do not exceed an average of 12½ percent by count of the total number of units, and that such split units do not exceed an average of 25 percent by count of the total number of units.

(7) *Crushed.* Not more than ¾ percent by weight of the drained pineapple may be blemished or seriously blemished. In determining the weight of any blemished material, the weight of the entire piece which is blemished is included and the percentage based on the drained weight of the crushed pineapple.

(d) (*C*) *classification.* If the canned pineapple consists of half slices or broken slices that are fairly free from defects, a score of 21 to 23 points may be given. Canned pineapple that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the product is fairly free from any defects not specifically mentioned that affect the appearance or edibility of the product, and, in addition has the following meanings with respect to, and applies only to, the following styles:

(1) *Half slices.* Not more than 3 units in containers of more than 25 units or not more than 1 unit in containers of 25 units or less may be crushed; the half slices may be trimmed but none of the half slices are excessively trimmed; and not more than 12½ percent by count of the units may be blemished or seriously blemished; and not more than 25 percent by count of the half slices may be split in not more than 1 place per unit. One unit in a single container is permitted to be blemished or seriously blemished and 1 half slice is permitted to be split if such unit and half slice exceed the respective allowance of 12½ percent and 25 percent

by count: *Provided*, That in all containers comprising the sample such blemished or seriously blemished units do not exceed an average of 12½ percent by count of the total number of units, and that such split units do not exceed an average of 25 percent by count of the total number of units.

(2) *Broken slices.* Not more than 5 percent by count of the units may be crushed; the broken slices may be trimmed but none of the broken slices are excessively trimmed; and not more than 12½ percent by count of the units may be blemished or seriously blemished.

(e) *(SStd) classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that fails to meet the requirements of paragraph (c) of this section, and half slices or broken slices that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1723 *Character*—(a) *General.* The factor of character refers to the degree of ripeness and maturity, the texture of the fruit, and the degree of freedom from core material. Core material shall not be considered unless such material may be definitely identified as hard and characteristic of the center structure of pineapple. In determining the weight of core material, such portions are cut cleanly from the rest of the fruit.

(b) *(A) classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that possesses a good character may be given a score of 27 to 30 points. "Good character" has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* The slices are of practically uniform ripeness, are at least reasonably firm with the fruitlets appearing as a compact structure, are reasonably free from porosity; and there may be present not more than 2½ percent by weight of the drained pineapple that is core material.

(2) *Tidbits, salad cuts, cubes, vertical cuts, or crushed.* The units are of practically uniform ripeness, the fruitlets appear as a compact structure, the units are reasonably free from porosity; and there may be present not more than 2½ percent by weight of the drained pineapple that is core material.

(3) *Chunks. The units are of prac*tically uniform ripeness, the fruitlets appear as a compact structure, the units are reasonably free from porosity, and the units are practically free from any core material.

(c) *(B) classification.* If the sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple possesses a reasonably good character, a score of 24 to 26 points may be given. Canned pineapple that falls into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" has the following meanings with respect to the following styles of canned pineapple:

(1) *Sliced.* The slices are of reasonably uniform ripeness, the fruitlets are reasonably compact in structure, the slices are fairly free from porosity; and there may be present not more than 5 percent by weight of the drained pineapple that is core material.

(2) *Tidbits, salad cuts, cubes, vertical cuts, or crushed.* The units are of reasonably uniform ripeness, the fruitlets are reasonably compact in structure, the units are fairly free from porosity; and there may be present not more than 5 percent by weight of the drained pineapple that is core material.

(3) *Chunks.* The units are of reasonably uniform ripeness, the fruitlets are reasonably compact in structure, the units are fairly free from porosity; and there may be present not more than 2½ percent by weight of the drained pineapple that is core material.

(d) *(C) classification.* Half slices and broken slices of canned pineapple that possesses a fairly good character may be given a score of 21 to 23 points. Canned pineapple that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" has the following meaning with respect to, and applies only to, the following styles:

(1) *Half slices and broken slices.* The units are of reasonably uniform ripeness, the fruitless are reasonably compact in structure, the units are fairly free from porosity; and there may be present not more than 5 percent by weight of the drained pineapple that is core material.

(e) *(SStd) classification.* Sliced, tidbits, salad cuts, chunks, cubes, vertical cuts, or crushed canned pineapple that fails to meet the requirements of paragraph (c) of this section, and half slices or broken slices that fail to meet the requirements of paragraph (d) of this section, may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1724 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned pineapple, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to each limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1725 *Score sheet for canned pineapple.*

Size and kind of container	-----
Container mark or identification	-----
Label	-----
Net weight (ounces)	-----
Vacuum (inches)	-----
Drained weight (ounces)	-----
Brix measurement	-----
Sirup designation (Extra heavy, heavy, etc.)	-----
Style	-----
Count	-----
Approximate sizes—Slices or half slices	-----
Thickness	-----
Diameter	-----
Diameter of core hole	-----

Factors	Score points		
Color	20	(A) 18-20 (B) [1] 16-17 (C) [1] 14-15 (D) [1] 0-13	
Uniformity of size and shape.	20	(A) 18-20 (B) 16-17 (C) 14-15 (D) [1] 0-13	
Absence of defects	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (D) [1] 0-20	
Character	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (D) [1] 0-20	
Total score	100		
Flavor and odor			-----
Grade			-----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN PINEAPPLE [1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1741 *Product description.* Frozen pineapple is prepared from the properly ripened fruit of the pineapple plant (Ananas sativus or Ananas comosus); is peeled, cored, trimmed, and washed; may be packed with or without packing media; and is frozen and stored at temperatures necessary for the preservation of the product.

§ 52.1742 *Styles of frozen pineapple*—(a) *Whole slices.* Frozen whole slices of pineapple consist of whole, practically unbroken slices of pineapple that have been cut, at a right angle to the longitudinal axis, into approximately equal units.

(b) *Half slices.* Frozen half slices of pineapple are such portions of whole slices of pineapple that are so matched in size and thickness that two portions are approximately equivalent to a slice.

(c) *Broken slices.* Frozen broken slices of pineapple consist of portions of slices of pineapple, if such portions are approximately of the same thickness and diameter.

(d) *Crushed.* Frozen crushed pineapple is pineapple that has been cut, shredded, or crushed into fine pieces.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(e) *Tidbits.* Frozen tidbits of pineapple are small, wedge-shaped sections cut from slices or portions of slices of pineapple.

(f) *Chunks.* Frozen chunks of pineapple are pieces of pineapple which do not conform to any of the foregoing styles, which need not be symmetrical nor uniform in size, and which do not exceed 1½ inches in any dimension.

§ 52.1743 *Grades of frozen pineapple.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of whole slices, crushed, tidbits, or chunks that possess a practically uniform, bright, characteristic yellow color in the applicable style; are practically uniform in size and symmetry in the applicable style; are practically free from defects in the applicable style; possess a good character in the applicable style; possess a normal flavor and odor; and score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of whole slices, crushed, tidbits, or chunks that possess a reasonably uniform, good, characteristic yellow color in the applicable style; are reasonably uniform in size and symmetry in the applicable style; are reasonably free from defects in the applicable style; possess a reasonably uniform, reasonably good character in the applicable style; possess a normal flavor and odor; and score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of half slices and broken slices that are fairly uniform in size and symmetry; possess a fairly uniform, fairly good, characteristic yellow color or better color; are fairly free from defects; possess a fairly good character; possess a normal flavor and odor; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" or "Substandard" is (1) the quality of whole slices, crushed, tidbits, or chunks that fail to meet the requirements of "U. S. Grade B" or "U. S. Choice" grade; or (2) the quality of half slices or broken slices that fail to meet the requirements of "U. S. Grade C" or "U. S. Standard."

FACTORS OF QUALITY

§ 52.1744 *Ascertaining the grade.* (a) The grade of frozen pineapple is determined immediately after thawing to the extent that the mass or units may be easily separated. The grade of frozen pineapple may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Color, uniformity of size and symmetry, absence of defects, and character.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Uniformity of size and symmetry	20
Absence of defects	30
Character	30
Total score	100

(c) "Normal flavor and odor" means that the pineapple is free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1745 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.1746 *Color*—(a) *(A) classification.* Whole slices, crushed, tidbits, or chunks that possess a practically uniform, bright, characteristic yellow color, may be given a score of 18 to 20 points. "Practically uniform, bright, characteristic yellow color" means that the frozen pineapple has a yellow color typical of frozen pineapple and that there may be some variation of such color in the mass or of the units.

(b) *(B) classification.* Whole slices, crushed, tidbits, or chunks that possess a reasonably uniform, good, characteristic yellow color, may be given a score of 16 or 17 points. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Choice," regardless of the total score for the product (this is a limiting rule). "Reasonably uniform, good, characteristic yellow color" means that the frozen pineapple may have considerable variation of such color in the mass or of the units.

(c) *(C) classification.* Half slices or broken slices that possess a fairly uniform, fairly good, characteristic yellow color or better color may be given a score of 14 or 15 points. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard," regardless of the total score for the product (this is a limiting rule). "Fairly uniform, fairly good, characteristic yellow color," means that the individual units of the frozen pineapple may vary markedly from a uniform, typical yellow color and may be slightly dull in color.

(d) *(SStd) classification.* Frozen pineapple that possesses a grayish cast or is definitely dull or off-color for any reason, or that fails to meet the requirements of paragraphs (a), (b), or (c) of this section for the applicable style may be given a score of 0 to 13 points and shall not be graded above "U. S. Grade D" or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1747 *Uniformity of size and symmetry*—(a) *General.* The factor of uniformity of size and symmetry shall not be scored when grading frozen crushed pineapple or frozen chunks of pineapple. The other three factors shall be scored and the total shall be multiplied by 100 and divided by 80, dropping any fractions, to determine the total score.

(b) *(A) classification.* If the frozen pineapple units are practically uniform in size and symmetry, a score of 18 to 20 points may be given. "Practically uniform in size and symmetry" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices and tidbits.* All of the units within each style are the same apparent thickness, size, and shape, with not more than a slight deviation in actual dimensions.

(c) *(B) classification.* If the frozen pineapple units are reasonably uniform in size and symmetry, a score of 16 or 17 points may be given. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice," regardless of the total score for the product (this is a limiting rule). "Reasonably uniform in size and symmetry" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices and tidbits.* The units within each style may vary in thickness, size, and shape with more than a slight deviation in actual dimensions.

(d) *(C) classification.* If the frozen pineapple units consist of half slices or broken slices, a score of 14 or 15 points may be given. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard," regardless of the total score for the product (this is a limiting rule).

§ 52.1748 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from blemished units; from excessively trimmed units; from broken units; and from crushed units. (See Table No. I of this subpart.)

(1) "Blemished units" are units of frozen pineapple with any fruit eye more than 1/32 inch in diameter, deep fruit eyes regardless of area, brown spots, peel, bruise, or other injury.

(2) "Excessively trimmed units" means that the units have been so trimmed that they do not retain their apparent original conformation.

(3) "Broken units" means that whole slices are definitely severed from core hole to perimeter.

(4) "Crushed units," except for crushed style, means that the units have been crushed to the extent that they are not of normal shape.

(b) *(A) classification.* Frozen pineapple that is practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices.* No units are crushed; no units are excessively trimmed; not more than 5 percent, by count, may be blemished; and not more than 10 percent, by count, may be broken in one place only. One blemished unit and one broken unit are permitted if one unit exceeds the respective allowance of 5 percent and 10 percent by count.

(2) *Tidbits and chunks.* Not more than 5 percent, by count, may be crushed and not more than 5 percent, by count, may be blemished.

(3) *Crushed.* Not more than ½ percent by weight, may be blemished units. In determining the weight of blemished material, the weight of the entire blemished piece is included and the percent-

age is based on the net weight of the pineapple.

(c) *(B) classification.* Frozen pineapple that is reasonably free from defects may be given a score of 24 to 26 points. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice," regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices.* Not more than 3 percent, by count, may be excessively trimmed; not more than 5 percent, by count, may be crushed; not more than 12½ percent, by count, may be blemished; and not more than 25 percent, by count, may be broken in one place only.

(2) *Tidbits and chunks.* Not more than 5 percent, by count, may be crushed; and not more than 12½ percent, by count, may be blemished.

(3) *Crushed.* Not more than 1 percent, by weight, may be blemished units. In determining the weight of blemished material, the weight of the entire piece is included and the percentage based on the net weight of the frozen pineapple.

(d) *(C) classification.* Frozen pineapple that is fairly free from defects may be given a score of 21 to 23 points. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard," regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Half slices and broken slices.* Not more than 5 percent, by count, may be crushed; and not more than 12½ percent, by count, may be blemished. Since half slices and broken slices of frozen pineapple are whole slices broken in more than one place, these styles are scored in this classification and shall not be graded above "U. S. Grade C" or "U. S. Standard," regardless of the total score for the product (this is a limiting rule).

(e) *(SStd) classification.* Whole slices, crushed, tidbits, and chunks of pineapple that fail to meet paragraph (c) of this section; and half slices or broken slices of frozen pineapple that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above "U. S. Grade D" or Substandard, regardless of the total score for the product (this is a limiting rule).

(f) The evaluation of the score for the factor of absence of defects may be determined from Table No. I of this subpart which indicates the maximum allowances for each type of defect for the score indicated.

§ 52.1749 *Character*—(a) *General.* The factor of character refers to the degree of ripeness and texture of the fruit.

(b) *(A) classification.* Frozen pineapple that possesses a good character may be given a score of 27 to 30 points. "Good character" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices, tidbits, and crushed.* The fruit is of practically uniform ripeness and there may be present not more than 2½ percent, by weight of the pineapple, that is core material or fibrous stock; and, in the case of whole slices and tidbits, the fruit is reasonably firm and the fruitlets appear as a compact structure, reasonably free from porosity.

(2) *Chunks.* The fruit is of practically uniform ripeness and normally has had more of the fibrous portions around the core hole removed than is the case with other styles of pack; the fruit is reasonably firm and the fruitlets appear as a compact structure, reasonably free from porosity.

(c) *(B) classification.* Frozen pineapple that possesses a reasonably good character may be given a score of 24 to 26 points. Frozen pineapple which falls into this classification shall not be graded above "U. S. Grade B" or "U. S. Choice," regardless of the total score for the product (this is a limiting rule). "Reasonably good character" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Whole slices, tidbits, and crushed.* The fruit is of reasonably uniform ripeness and there may be present not more than 5 percent, by weight of the pineapple, that is core material or fibrous stock; and, in the case of whole slices and tidbits, the fruitlets are reasonably compact in structure, fairly free from porosity.

(2) *Chunks.* The fruit is of reasonably uniform ripeness and normally has had more of the fibrous portions around the core hole removed than is the case with other styles of pack; and the fruitlets are reasonably compact in structure, fairly free from porosity.

(d) *(C) classification.* If the frozen pineapple possesses a fairly good character, a score of 21 to 23 points may be given. Frozen pineapple that falls into this classification shall not be graded above "U. S. Grade C" or "U. S. Standard" regardless of the total score for the product (this is a limiting rule). "Fairly good character" has the following meaning with respect to, and applies only to, the following styles of frozen pineapple:

(1) *Half slices and broken slices.* The texture may be variable and there may be present not more than 5 percent, by weight of the pineapple, that is core material of fibrous stock and the fruitlets may be flaccid and loosely constructed.

(e) *(SStd) classification.* Whole slices, crushed, tidbits, and chunks of pineapple that fail to meet paragraph (c) of this section; and half slices and broken slices that fail to meet the requirements of paragraph (d) of this section, may be given a score of 0 to 20 points and shall not be graded above "U. S. Grade D" or Substandard regardless of the total score for the product (this is a limiting rule).

TABLE NO. I—ALLOWANCES FOR DEFECTS IN FROZEN PINEAPPLE

Grade	Score points	Whole slices				Crushed—Blemished units	Half slices and broken slices		Tidbits and chunks	
		Crushed units	Excessively trimmed	Blemished units	Broken units		Crushed units	Blemished units	Crushed units	Blemished units
		Maximum allowances								
		By count				By weight	By count			
U. S. Grade A or U. S. Fancy.	30	None	None	2%	4%	¼%	--------	--------	2%	2%
	29	None	None	3%	6%	¼%			3%	3%
	28	None	None	4%	8%	½%			4%	4%
	27	None	None	5%	10%	½%			5%	5%
U. S. Grade B or U. S. Choice.	26	1%	1%	6%	15%	¾%	--------	--------	2%	6%
	25	3%	2%	9%	20%	¾%			3%	9%
	24	5%	3%	12½%	25%	1%			5%	12½%
U. S. Grade C or U. S. Standard.	23	--------	--------	--------	--------	--------	1%	6%	--------	--------
	22						3%	9%		
	21						5%	12½%		
U. S. Grade D or Substandard.	20 or less	More than allowances permitted for 24 points.					More than allowances permitted for 21 points.		More than allowances permitted for 24 points.	

LOT CERTIFICATION TOLERANCES

§ 52.1750 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen pineapple, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of

quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1751 *Score sheet for frozen pineapple.*

Size and kind of container				-----
Container mark or identification				-----
Label (style of pack: Ratio of fruit to sugar, etc., if shown)				-----
Net weight				-----
Style				-----
Count (of whole slices)				-----
Factors	Score points			
Color	20	(A)	18-20	
		(B)	[1] 16-17	
		(C)	[1] 14-15	
		(D)	[1] 0-13	
Uniformity of size and symmetry.	20	(A)	18-20	
		(B)	[1] 16-17	
		(C)	[1] 14-15	
Absence of defects	30	(A)	27-30	
		(B)	[1] 24-26	
		(C)	[1] 21-23	
		(D)	[1] 0-20	
Character	30	(A)	27-30	
		(B)	[1] 24-26	
		(C)	[1] 21-23	
		(D)	[1] 0-20	
Total score	100			
Normal flavor and odor				-----
Grade				-----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PINEAPPLE JUICE [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1761 *Product description.* Canned pineapple juice is the undiluted, unconcentrated, unfermented juice obtained from the edible portions of the mature fruit of the pineapple plant (Ananas comosus or Ananas sativus); is prepared by a succession of treatments (including, but not being limited to, crushing, screening, and pressing with or without heat) to extract a part of the liquid and insoluble materials; is packed with or without the addition of sweetening ingredients; is sufficiently processed by heat to assure the preservation of the product in hermetically-sealed containers and is thereupon packed into containers which are thereafter hermetically sealed.

§ 52.1762 *Grades of canned pineapple juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned pineapple juice that possesses a very good color, is practically free from defects, possesses a very good flavor, and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned pineapple juice that possesses a good color, is fairly free from defects, possesses a good flavor, and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned pineapple juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.1763 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with pineapple juice and that the product occupy not less than 90 percent of the total capacity of the container.

FACTORS OF QUALITY

§ 52.1764 *Ascertaining the grade.* (a) The grade of canned pineapple juice may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.1765 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example) "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1766 *Color*—(a) *(A) classification.* Canned pineapple juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the canned pineapple juice possesses a bright, typical color characteristic of canned pineapple juice made from freshly pressed pineapple juice from properly matured and properly ripened pineapple, and which pineapple juice has been properly processed.

(b) *(C) classification.* If the canned pineapple juice possesses a good color, a score of 14 to 16 points may be given. Canned pineapple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means that the canned pineapple juice possesses a characteristic color which may be slightly dull or may be light amber but is not off color.

(c) *(SStd) classification.* Canned pineapple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1767 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from specks and other objectionable particles and to the quantity of free and suspended pulp that may be present.

(b) *(A) classification.* Canned pineapple juice that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the canned pineapple juice does not contain specks or other objectionable particles that affect the appearance or palatability of the juice and that the canned pineapple juice may contain not more than 26 percent free and suspended pulp when determined in accordance with the method outlined in this subpart.

(c) *(C) classification.* If the canned pineapple juice is fairly free from defects, a score of 28 to 33 points may be given. Canned pineapple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned pineapple juice may contain specks or other objectionable particles that do not materially affect the appearance or palatability of the juice and that the canned pineapple juice may contain not more than 30 percent free and suspended pulp when determined in accordance with the method outlined in this subpart.

(d) *(SStd) classification.* Canned pineapple juice that fails to meet the requirements of paragraph (c) of this section, may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1768 *Flavor*—(a) *(A) classification.* Canned pineapple juice that possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means a fine, distinct canned pineapple juice flavor, characteristic of canned pineapple juice made from properly matured and properly ripened pineapple, and which pineapple juice is free from any caramelized flavor and that the canned pineapple juice meets the following requirements:

(1) *Brix.* Not less than 12.0 degrees.

(2) *Brix-acid ratio.* Not less than 12 to 1.

(b) *(C) classification.* If the canned pineapple juice possesses a good flavor, a score of 28 to 33 points may be given. Canned pineapple juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good flavor" means a good, normal canned pineapple juice flavor that may be slightly caramelized but is free from objectionable flavor or off flavor of any kind and that the canned pineapple juice meets the following requirements:

(1) *Brix.* Not less than 10.5 degrees.

(2) *Brix-acid ratio.* Not less than 12 to 1.

(c) *(SStd) classification.* If the canned pineapple juice fails to meet the requirements of paragraph (b) of this section, if the canned pineapple juice has the flavor of fruit not properly matured or not properly ripened, or if the canned pineapple juice is definitely unpalatable, a score of 0 to 27 points may be given. Canned pineapple juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.1769 *Explanation of terms and analyses.* (a) "Brix" means the degrees Brix of canned pineapple juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned pineapple juice may be determined by any other method which gives equivalent results.

(b) "Free and suspended pulp" is determined by the following method: Graduated centrifuge tubes with a capacity of 50 ml. are filled with juice and placed in a suitable centrifuge. The speed is adjusted, according to the diameter, as indicated in Table No. I and the juice is centrifuged for exactly 3 minutes. As used herein, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating position. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE NO. I

Diameter	Approximate revolutions per minute
10 inches	1,609
10½ inches	1,570
11 inches	1,534
11½ inches	1,500
12 inches	1,468
12½ inches	1,438
13 inches	1,410
13½ inches	1,384
14 inches	1,359
14½ inches	1,336
15 inches	1,313
15½ inches	1,292
16 inches	1,271
16½ inches	1,252
17 inches	1,234
17½ inches	1,216
18 inches	1,199
18½ inches	1,182
19 inches	1,167
19½ inches	1,152
20 inches	1,137

(c) "Acid" means grams of acid (calculated as anhydrous citric acid) per 100 ml. of juice in canned pineapple juice determined by titration with standard sodium hydroxide solution using phenolphthalein indicator.

LOT CERTIFICATION TOLERANCES

§ 52.1770 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned pineapple juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1771 *Score sheet for canned pineapple juice.*

Size and kind of container			-----
Container mark or identification			-----
Label			-----
Net weight (Avd. ounces) or Liquid measure (Fl. ounces)			-----
Vacuum (inches)			-----
Brix measurement (° Brix)			-----
Pulp (free and suspended—% Pulp)			-----
Acid (anhydrous citric: grams/100 ml.)			-----
Brix-acid ratio			-----
Factors	Score Points		
Color	20	(A) 17-20 (C) [1]14-16 (D) [1]0-13	
Absence of defects	40	(A) 34-40 (C) [1]28-33 (D) [1]0-27	
Flavor	40	(A) 34-40 (C) [1]28-33 (D) [1]0-27	
Total score	100		
Grade	-----	-----------	-----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED PLUMS[1]

PRODUCT DESCRIPTION, VARIETIES, STYLES, AND GRADES

§ 52.1781 *Product description.* Canned plums (including prune plums) are the properly ripened fresh fruit of the plum tree (Prunus domestica), are prepared by stemming and washing, are packed in water with or without sweetening ingredients, may be packed with the addition of suitable ingredients for "dietetic pack", and are sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.1782 *Varieties of canned plums.* (a) Purple plum groups.

(b) Green gage plum groups.

(c) Yellow egg plum groups.

§ 52.1783 *Styles of canned plums.* (a) "Whole" canned plums are whole, unpeeled, unpitted plums.

(b) "Halved" canned plums are unpeeled, pitted plums, cut or separated longitudinally into approximate halves.

§ 52.1784 *Grades of canned plums.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned plums that possess similar varietal characteristics; that are practically free from defects; that possess a normal flavor and odor; and that are of such quality with respect to color, uniformity of size, and character as to score not less than 90 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of canned plums that possess similar varietal characteristics; that possess a reasonably good color; that are reasonably free from defects; that possess a normal flavor and odor; and that are of such quality with respect to uniformity of size and character as to score not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of canned plums that possess similar varietal characteristics; that possess a fairly good color; that are fairly uniform in size; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "U. S. Grade D" is the quality of canned plums that possess similar varietal characteristics; that possess a fairly good color, that may or may not be fairly uniform in size; that are fairly free from defects except that there is no limit on crushed or broken units; that may or may not possess a fairly good character; and that possess a normal flavor and odor.

(e) "Substandard" is the quality of canned plums that fails to meet the requirements of either U. S. Grade C or U. S. Standard or U. S. Grade D, or both.

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.1785 *Recommended designations of liquid media and Brix measurements for canned plums.* "Cut-out" requirements for liquid media in canned plums are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. It is recommended that canned plums have the following "cut-out" Brix measurement for the applicable designation, which designations include, but are not limited to:

Designation	Brix measurement
"Extra heavy sirup"	26° or more but not more than 35°.
"Heavy sirup"	21° or more but less than 26°.
"Light sirup"	16° or more but less than 21°.
"In water"	Packed in water.

§ 52.1786 *Recommended fill of container for canned plums.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned plums be filled with plums as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

§ 52.1787 *Recommended minimum drained weight.* The minimum drained weight recommendations for the applicable styles in Table I and Table II of this subpart are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned plums is determined by emptying the contents of the container, turning the pit cavities down in halves, upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and plums less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404×414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR WHOLE CANNED PLUMS

Range of count of whole plums per container	In any sirup; or in any other liquid medium including declared "dietetic packs" whether or not packed "in water"						
	Metal containers					Glass containers	
	8 Z tall (211 x 304)	No. 1 tall (301 x 411)	No. 303 (303 x 406)	No. 2 (307 x 409)	No. 2½ (401 x 411)	No. 303	No. 2½
	Ounces	*Ounces*	*Ounces*	*Ounces*	*Ounces*	*Ounces*	*Ounces*
10 or less	4¼	9	9	10½	15½	9	15
11 to 16	4¼	9	9	10½	15½	9	15
17 to 22	----------	----------	----------	11	16	----------	15½
23 and over	----------	----------	----------	----------	16½	----------	15½

	Whole style, in No. 10 (603 x 700) cans	
	In any sirup; or in any other liquid medium including declared "dietetic packs" whether or not packed "in water"	Other than declared "dietetic packs" packed "in water"
Any count	60 ounces	65 ounces

TABLE II—RECOMMENDED MINIMUM DRAINED WEIGHTS FOR HALVED CANNED PLUMS

Container designation (metal, unless otherwise stated)	Container size (overall dimensions)		Any grade in any sirup or other liquid medium
	Width	Height	
	Inches	*Inches*	*Ounces*
8 Z tall	$2\frac{11}{16}$	$3\frac{4}{16}$	4¾
8 ounce glass	----------	----------	4¾
No. 1 tall	$3\frac{1}{16}$	$4\frac{11}{16}$	9¾
No. 303	$3\frac{3}{16}$	$4\frac{6}{16}$	9¾
303 glass	----------	----------	9¾
No. 2	$3\frac{7}{16}$	$4\frac{9}{16}$	12
No. 2½	$4\frac{1}{16}$	$4\frac{11}{16}$	16¼
No. 2½ glass	----------	----------	16
No. 10	$6\frac{3}{16}$	7	63

§ 52.1788 *Compliance with recommended drained weights.* Compliance with the recommended drained weights for canned plums is determined by averaging the drained weights from all the containers which are representative of a specific lot and such lot is considered as meeting the recommendations, for the applicable styles, if in:

(a) Whole style:

(1) The average of the drained weights from all of the containers meets the average of the recommended drained weights for the counts from the containers examined;

(2) One-half or more of the containers meet the recommended drained weight for the respective count found; and

(3) The drained weights from the containers which do not meet the recommended drained weight for the count found are within the range of variability for good commercial practice.

(b) Halved style:

(1) The average drained weight from all the containers meets the recommended drained weight;

(2) One-half or more of the containers meet the recommended drained weight; and

(3) The drained weights from the containers which do not meet the recommended drained weight are within the range of variability for good commercial practice.

FACTORS OF QUALITY

§ 52.1789 *Ascertaining the grade.* (a) The grade of canned plums is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	20
Uniformity of size	20
Absence of defects	30
Character	30
Total score	100

(c) "Normal flavor and odor" means that the canned plums are free from objectionable flavors and objectionable odors of any kind.

§ 52.1790 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.1791 *Color*—(a) *General.* The factor of color refers to the color of the background skin and any exposed flesh typical for the varietal group and to the intensity and brightness of such characteristic color. Characteristic mottling on the skin for the varietal group is considered as typical color and not as lacking in uniformity of color.

(b) *(A) classification.* Canned plums that possess a good color may be given a score of 18 to 20 points. "Good color" means that the plums possess a practically uniform, bright color typical of well-matured plums of a single varietal group which have been properly processed; that any exposed flesh is reasonably bright; and that not more than 10 percent by count of the units may possess a reasonably good color, including the over-all "dead-brown" color of canned purple plums. To score in this classification canned purple plums shall be surrounded by a practically clear and highly colored purple liquid.

(c) *(B) classification.* If the canned plums possess a reasonably good color, a score of 16 or 17 points may be given. "Reasonably good color" means that the plums possess a reasonably uniform, reasonably bright color typical of reasonably well-matured plums of a single varietal group which have been properly processed; that any exposed flesh may be only fairly bright; and that not more than 15 percent by count of the units may possess a fairly good color. To score in this classification canned purple plums shall be surrounded by a reasonably clear and reasonably high-colored liquid.

(d) *(C) or (D) classification.* If the canned plums possess a fairly good color, a score of 14 or 15 points may be given. Canned plums that fall into this classification shall not be graded above U. S. Grade C or Standard or U. S. Grade D, whichever is applicable, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the plums possess a color typical of at least fairly well-matured plums of a single varietal group which have been properly processed; that such characteristic color may be markedly variable including the over-all "dead-brown" color of canned purple plums but is not off color for any reason.

(e) *(SStd) classification.* Canned plums that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1792 *Uniformity of size*—(a) *General.* Any plums of halved style that are not cleanly divided into halves shall be separated into two approximately equal halves before ascertaining uniformity of size.

(b) *(A) classification.* Canned plums that are practically uniform in size may be given a score of 18 to 20 points. "Practically uniform in size" means that:

(1) In containers with less than 20 units, the weight of the largest unit does not exceed the weight of the second smallest unit by more than 50 percent, or

(2) In containers with 20 or more units, in 95 percent by count of the units that are most uniform in weight, the weight of the largest unit does not exceed the weight of the smallest unit by more than 50 percent.

(c) (*B*) *classification*. If the canned plums are reasonably uniform in size, a score of 16 or 17 points may be given. "Reasonably uniform in size" means that:

(1) In containers with less than 20 units, the weight of the largest unit does not exceed the weight of the second smallest unit by more than 75 percent, or

(2) In containers with 20 or more units, in 95 percent by count of the units that are most uniform in weight, the weight of the largest unit does not exceed the weight of the smallest unit by more than 75 percent.

(d) (*C*) *classification*. If the canned plums are fairly uniform in size, a score of 14 or 15 points may be given. "Fairly uniform in size" means that:

(1) In containers with less than 20 units, the weight of the largest unit is not more than twice the weight of the second smallest unit, or

(2) In containers with 20 or more units, in 95 percent by count of the units that are most uniform in weight, the weight of the largest unit is not more than twice the weight of the smallest unit.

(e) (*D*) *or* (*SStd*) *classification*. Canned plums that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, whichever is applicable, regardless of the total score for the product (this is a limiting rule).

§ 52.1793 *Absence of defects*—(a) *General*. The factor of absence of defects refers to the degree of freedom from harmless extraneous material; from crushed or broken units; from pits or loose pits for the applicable style; from damaged and seriously damaged units; and from any other defects which detract from the appearance or edibility of the product.

(1) A "unit", in whole style, means a whole or substantially whole plum and, in halved style, any whole or partially whole plum is separated into two approximately equal halves and each half therefrom is considered a "unit."

(2) "Harmless extraneous material" means any vegetable substance (including, but not limited to, a leaf or stem or significant portions thereof) that is harmless.

(3) "Crushed or broken" means that a unit bears marks of crushing or is otherwise crushed or broken not due to ripeness. In whole style, plums that possess broken skins or that are split to the pit cavity are not considered crushed or broken unless the entire pit cavity is exposed or the unit is mutilated to the extent that it is not intact as a whole or substantially whole plum. In halved style, halves of plums that are slightly split are not considered crushed or broken unless the unit is seriously mutilated.

(4) A "pit" means a whole pit or any portion thereof. In whole style, only "loose pits" are considered as defects. In halved style, pits are considered as defects whether loose or attached to a unit.

(5) "Damaged" means any injury which, singly or in the aggregate on a unit or in a unit (except for internal gummosis), materially affects the appearance of the unit and includes, but is not limited to:

(i) Surface areas blemished by sunburn, scab, or other serious discoloration (exclusive of characteristic mottling) having an aggregate area exceeding that of a circle 3/16 inch in diameter and not extending into the fruit tissue;

(ii) Surface areas blemished by sunburn, scab, or other serious discoloration (exclusive of characteristic mottling) having an aggregate area equivalent of, or less than, that of a circle 3/16 inch in diameter and extending into the fruit tissue so that the flesh is materially discolored or toughened;

(iii) Abnormalities, such as "doubles" and growth cracks, but not "shriveled" areas:

(iv) External gummosis.

(6) "Seriously damaged" means damaged to the extent that the appearance or edibility of the unit is seriously affected.

(b) (*A*) *classification*. Canned plums that are practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that the canned plums are practically free from any defects not specifically mentioned that affect the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 small stem or 1 small leaf for each 64 ounces of net weight; and no harmless extraneous material;

(2) No crushed or broken units;

(3) 1 loose pit for each 32 ounces of net weight in whole style and no pits in halved style;

(4) A total of 10 percent by count of the units may be damaged and seriously damaged: *Provided*, That not more than 3 percent by count of the units may be seriously damaged. One unit in a single container is permitted to be damaged or one unit in a single container is permitted to be seriously damaged if any of such units exceed the respective allowances of 10 percent and 3 percent by count, provided that in all containers comprising the sample such damaged and seriously damaged units do not exceed an average of 10 percent by count of the total number of units or that such seriously damaged units do not exceed an average of 3 percent by count of the total number of units.

(c) (*B*) *classification*. If the canned plums are reasonably free from defects, a score of 24 to 26 points may be given. Canned plums that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the canned plums are reasonably free from any defects not specifically mentioned that affect materially the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 small stem or 1 small leaf for each 32 ounces of net weight; and no other harmless extraneous material;

(2) 5 percent by count of the units may be crushed or broken;

(3) 1 loose pit for each 16 ounces of net weight in whole style and no pits in halved style; and

(4) A total of 15 percent by count of the units may be damaged and seriously damaged: *Provided*, That not more than 5 percent by count of the units may be seriously damaged. One unit in a single container is permitted to be damaged or one unit in a single container is permitted to be seriously damaged if any of such units exceed the respective allowances of 15 percent and 5 percent by count, provided that in all containers comprising the sample such damaged and seriously damaged units do not exceed an average of 15 percent by count of the total number of units or that such seriously damaged units do not exceed an average of 5 percent by count of the total number of units.

(d) (*C*) *classification*. If the canned plums are fairly free from defects, a score of 21 to 23 points may be given. Canned plums that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned plums are fairly free from any defects not specifically mentioned that affect materially the appearance or edibility of the product and that for the applicable style not more than the following defects or defective units may be present:

(1) 1 small stem or 1 small leaf for each 16 ounces of net weight and 1 piece of other harmless extraneous material for each 96 ounces of net weight;

(2) 10 percent by count of the units may be crushed or broken;

(3) 3 loose pits for each 32 ounces of net weight in whole style and 1 pit for each 32 ounces of net weight in halved plums; and

(4) A total of 20 percent by count of the units may be damaged and seriously damaged: *Provided*, That not more than 10 percent by count of the units may be seriously damaged. One unit in a single container is permitted to be seriously damaged if such unit exceeds 10 percent by count, provided that in all containers comprising the sample such seriously damaged units do not exceed an average of 10 percent by count of the total number of units.

(e) (*D*) *classification*. Canned plums that fail to meet the requirements of paragraph (d) of this section with respect to requirements in subparagraph (2) of said paragraph (or only with respect to crushed or broken units) may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D, regardless of the total score for the product (this is a limiting rule).

(f) (*SStd*) *classification*. Canned plums that fail to meet the requirements of paragraph (d) of this section with respect to requirements other than subparagraph (2) of said paragraph (or other than for crushed and broken units) may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1794 *Character*—(a) *General.* The factor of character refers to the texture and condition of the flesh in relation to ripeness or maturity, to the tenderness and firmness of the canned plums, and to shriveled areas of the skin.

(b) *(A) classification.* Canned plums that possess a good character may be given a score of 27 to 30 points. "Good character" means that the units are thick-fleshed, are tender and may be soft but hold their apparent original conformation, and otherwise possess a good texture of both skin and flesh characteristic of canned plums that have been properly processed from well-ripened or well-matured plums; and that not more than a total of 10 percent by count of the canned plums may possess a reasonably good character or may possess shriveled areas that do not materially affect the appearance of the plum.

(c) *(B) classification.* If the canned plums possess a reasonably good character, a score of 24 to 26 points may be given. "Reasonably good character" means that the units may be slightly lacking in thickness of flesh, may be variable in texture from soft to slightly firm, and otherwise possess a reasonably good texture of both skin and flesh characteristic of canned plums that have been properly processed from reasonably well-ripened or reasonably well-matured plums; and that not more than a total of 20 percent by count of the canned plums may possess a fairly good character or may possess shriveled areas that do not materially affect the appearance of the plum.

(d) *(C) classification.* If the canned plums possess a fairly good character, a score of 21 to 23 points may be given. Canned plums that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the units may be more than slightly lacking in thickness of flesh, possess a fairly good texture of both skin and flesh characteristic of canned plums that have been properly processed from fairly well-ripened or fairly well-matured plums, may be variable in texture from very soft to slightly tough but are not so soft as to show material disintegration, and may possess shriveled areas that materially affect, but do not seriously affect, the appearance of the canned plums.

(e) *(D)* or *(SStd) classification.* Canned plums that fail to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points and shall not be graded above U. S. Grade D or Substandard, whichever is applicable, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1795 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned plums, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1796 *Score sheet for canned plums.*

Size and kind of container			----
Container mark or identification			----
Label			----
Net weight (ounces)			----
Vacuum (inches)			----
Count			----
Drained weight (ounces)			----
Brix measurement			----
Sirup designation (extra heavy, heavy, etc.)			----
Style (whole) (halves)			----
Factors		**Score points**	
Color	20	(A) 18-20 (B) 16-17 (C) and (D) [1] 14-15 (SStd) [1] 0-13	
Uniformity of size	20	(A) 18-20 (B) 16-17 (C) 14-15 (D) and (SStd) [1] 0-13	
Absence of defects	30	(A) 27-30 (B) [1] 24-26 (C) [1] 21-23 (D) and (SStd) [1] 0-20	
Character	30	(A) 27-30 (B) 24-26 (C) [1] 21-23 (D) and (SStd) [1] 0-20	
Total score	100		
Normal flavor and odor			----
Grade			----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED WHITE POTATOES [1]

IDENTITY, STYLES, AND GRADES

§ 52.1811 *Identity.* "Canned white potatoes" means canned potatoes as defined in the definitions and standards of identity for canned vegetables other than those specifically regulated, as amended for canned potatoes (21 CFR 52.990 (c) (3)), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.1812 *Styles of canned white potatoes.* For the purpose of the grade standards in this subpart, the canned white potatoes are properly peeled prior to canning; "unit" means an individual potato or a portion of a potato; and the various styles of the canned product are as follows:

(a) "Whole" or "whole potatoes" is the style that consists of units that are whole potatoes that are of the approximate conformation of the prepared potatoes.

(b) "Slices," "sliced," or "sliced potatoes" is the style that consists of units that are potato slices of practically uniform thickness.

(c) "Dice," "diced," or "diced potatoes" is the style that consists of units that are approximate cubes.

(d) "Shoestring," "French style," "julienne," "shoestring potatoes," "French-style potatoes," or "julienne potatoes" is the style that consists of units that are potato strips of varying lengths.

(e) "Pieces" is the style that consists of units (including, but not being limited to, "orange cuts" and "quarters") other than those comprising any of the foregoing styles or of a mixture of units comprising any two or more styles.

§ 52.1813 *Grades of canned white potatoes.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned white potatoes that possess similar varietal characteristics; possess a good color; are practically free from defects; possess a good texture; possess a normal flavor and odor; are at least fairly uniform in size and shape; and score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned white potatoes that may or may not possess similar varietal characteristics; possess a fairly good color; are fairly free from defects; possess a fairly good texture; possess a normal flavor and odor; may or may not be fairly uniform in size and shape; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned white potatoes that fail to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.1814 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of canned white potatoes be filled with white potatoes as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the total capacity of the container.

§ 52.1815 *Recommended minimum drained weight.* The minimum drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned white potatoes is determined by emptying the contents of the container upon a circular sieve of proper diameter containing 8 meshes to the inch (0.097-inch square openings) and allowing to drain for 2 minutes. A sieve 8 inches in diameter is used for containers the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can (404 x 414).

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

TABLE No. I

[Recommended minimum drained weights for canned white potatoes]

Container size or designation:	*All styles*
No. 2	13 ounces
No. 2½	19 ounces
No. 10	74 ounces

SIZES

§ 52.1816 *Sizes of canned whole white potatoes.* The size of a whole potato is determined by its diameter which is the greatest dimension measured at right angles to its greatest cross section length. The designations of the various sizes of such potatoes are shown in Table No. II of this section.

TABLE No. II

[Sizes of canned whole white potatoes]

Word designation	Number designation	Diameter (in inches)
Tiny	Size 1	1 inch or less.
Small	Size 2	Over 1 inch to, and including, 1½ inches.
Medium	Size 3	Over 1½ inches.

FACTORS OF QUALITY

§ 52.1817 *Ascertaining the grade.* (a) The grade of canned white potatoes may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, uniformity of size and shape, absence of defects, and texture.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors	*Points*
Color	20
Uniformity of size and shape	20
Absence of defects	40
Texture	20
Total score	100

(c) "Normal flavor and odor" means that the product is free from objectionable odors and objectionable flavors of any kind.

§ 52.1818 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1819 *Color*—(a) *(A) classification.* Canned white potatoes that possess a good color may be given a score of 17 to 20 points. "Good color" means that the canned white potatoes, exclusive of the units that are blemished by discoloration, are practically free from oxidation and possess a practically uniform, light color typical of canned white potatoes processed from potatoes of similar varietal characteristics.

(b) *(C) classification.* If the canned white potatoes possess a fairly good color, a score of 14 to 16 points may be given. Canned white potatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned white potatoes, exclusive of units that are blemished by discoloration, possess a fairly uniform color typical of canned white potatoes although the color of the potatoes, whether individually or in combination, may be variable, light, dull, grayish-white, yellow-white, or watery-white (semi-translucent), or indicative of slight oxidation, or slight discoloration but not off-color.

(c) *(SStd) classification.* Canned white potatoes that for any reason fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1820 *Uniformity of size and shape*—(a) *(A) classification.* Canned white potatoes that are practically uniform in size and shape may be given a score of 17 to 20 points. "Practically uniform in size and shape" has the following meanings with respect to the various styles of canned white potatoes:

(1) *Whole potatoes.* The size of each whole potato is not more than 2 inches in diameter, measured as aforesaid; and the weight of the largest whole potato is not more than three times the weight of the second smallest whole potato.

(2) *Sliced potatoes.* The diameter of any slice is the shortest diameter across the surface of the slice. The individual slice is not more than ¾ inch in thickness when measured at the thickest portion; the size of each slice is not more than 2 inches in diameter, measured as aforesaid; and the diameter of the largest slice is not greater than one and one-half times the diameter of the second smallest slice.

(3) *Diced potatoes.* The units are practically uniform in size and shape; and the aggregate weight of the units which are smaller than one-half of a cube, the units which are larger than a ½-inch cube, and the units which are irregular in shape does not exceed 10 percent of the weight of all units.

(4) *Shoestring potatoes.* The strips of potatoes are practically uniform in thickness and the aggregate weight of all strips less than ½ inch in length does not exceed 10 percent of the weight of all the strips.

(5) *Pieces.* The individual units each weigh not less than ½ ounce nor more than 2 ounces and the weight of the largest unit is not more than twice the weight of the second smallest unit.

(b) *(C) classification.* If the canned white potatoes are fairly uniform in size and shape, a score of 14 to 16 points may be given. "Fairly uniform in size and shape" has the following meanings with respect to the various styles of canned white potatoes:

(1) *Whole potatoes.* The size of each whole potato may be more than 2 inches in diameter but not more than 2½ inches in diameter, measured as aforesaid; and the weight of the largest whole potato is not more than four times the weight of the second smallest whole potato.

(2) *Sliced potatoes.* The diameter of any slice is the shortest diameter across the surface of the slice. The individual slice is not more than 1 inch in thickness when measured at the thickest portion; the size of each slice is not more than 2½ inches in diameter, measured as aforesaid; and the diameter of the largest slice is not more than twice the diameter of the second smallest slice.

(3) *Diced potatoes.* The units are fairly uniform in size and shape; and the aggregate weight of the units which are smaller than one-half of a cube, the units which are larger than ¾-inch cubes, and the units which are irregular in shape does not exceed 25 percent of the weight of all units.

(4) *Shoestring potatoes.* The strips of potatoes are fairly uniform in thickness and the aggregate weight of all strips less than ½ inch in length does not exceed 25 percent of the weight of all the strips.

(5) *Pieces.* The individual units each weigh not less than ¼ ounce nor more than 3 ounces and the weight of the largest unit is not more than four times the weight of the second smallest unit.

(c) *(SStd) classification.* Canned white potatoes that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.1821 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, grit, peel, blemished units, and mechanical damage.

(1) "Harmless extraneous material" means vegetable substances such as weeds, grass, and leaves and any portions thereof that are harmless.

(2) "Grit" means sand, and other rough, hard particles of earthy sediment.

(3) "Blemished" means affected by brown or black surface or internal discoloration, concentrated areas that are otherwise discolored, discolored eyes, unpeeled eyes, hollow heart, scab, or other means when the blemishes, singly or in combination on a unit, materially affect the appearance or eating quality of the unit.

(4) "Seriously blemished" means blemished to such an extent that the appearance or eating quality of the unit is seriously affected.

(5) "Mechanical damage" means moderate trimming or gouges due to the trimming of a whole potato which materially affect the appearance of the whole potato. Slight cuts or slight indentations due to trimming are not considered mechanical damage.

(6) "Serious mechanical damage" means broken units, serious trimming, or

deep gouges due to the trimming of a whole potato which seriously affect the appearance of the whole potato and destroy the conformation of the unit.

(b) *(A) classification.* Canned white potatoes that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" has the following meanings with respect to the various styles of canned white potatoes:

(1) *Whole.* No harmless extraneous material or grit is present; not more than ½ square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of potatoes that are blemished or seriously blemished and potatoes that possess mechanical damage or serious mechanical damage does not exceed 20 percent of the weight of all the units, but of such 20 percent not more than one-fourth thereof or one potato, whichever is the greater in weight, may be seriously blemished or possess serious mechanical damage.

(2) *Sliced; pieces.* No harmless extraneous material or grit is present, not more than ½ square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of units that are blemished and units that are seriously blemished does not exceed 10 percent of the weight of all the units, but of such 10 percent not more than one-fourth thereof or one unit, whichever is the greater in weight, may be seriously blemished.

(3) *Diced; shoestring.* No harmless extraneous material or grit is present; not more than ½ square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of units that are blemished and units that are seriously blemished does not exceed 4 percent of the weight of all the units, but of such 4 percent not more than one-fourth thereof may be seriously blemished.

(c) *(C) classification.* If the canned white potatoes are fairly free from defects, a score of 28 to 33 points may be given. Canned white potatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" has the following meanings with respect to the various styles of canned white potatoes.

(1) *Whole.* Not more than 1 small piece of harmless extraneous material for each 20 ounces of net weight may be present; not more than a trace of grit may be present; not more than 1 square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of potatoes that are blemished or seriously blemished, and potatoes that possess mechanical damage, or serious mechanical damage does not exceed 30 percent of the weight of all the units, but of such 30 percent not more than one-third thereof or one potato, whichever is the greater in weight, may be seriously blemished or possess serious mechanical damage.

(2) *Sliced; pieces.* Not more than 1 small piece of harmless extraneous material for each 20 ounces of net weight may be present; not more than a trace of grit may be present; not more than 1 square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of all units that are blemished or seriously blemished does not exceed 15 percent of the weight of all the units, but of such 15 percent not more than one-third thereof or one unit, whichever is the greater in weight, may be seriously blemished.

(3) *Diced; shoestring.* Not more than 1 small piece of harmless extraneous material for each 20 ounces of net weight may be present; not more than a trace of grit may be present; not more than 1 square inch, in the aggregate, of peel may be present for each 20 ounces of net weight; and the aggregate weight of units that are blemished and units that are seriously blemished does not exceed 6 percent of the weight of all the units, but of such 6 percent not more than one-third thereof may be seriously blemished.

(d) *(SStd) classification.* Canned white potatoes that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1822 *Texture*—(a) *(A) classification.* Canned white potatoes that possess a good texture may be given a score of 17 to 20 points. "Good texture" means that the texture of the potatoes is typical of properly prepared and properly processed potatoes and that the potatoes are firm and possess a fine and even grain and may possess not more than a slight amount of sloughing that does not materially affect the appearance of the product.

(b) *(C) classification.* If the canned white potatoes possess a fairly good texture, a score of 14 to 16 points may be given. Canned white potatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good texture" means that the potatoes may be variable in texture, may be slightly coarse-grained, may be slightly hard, may be slightly soft, or may possess more than a slight amount of sloughing or more than a slight amount of disintegration, provided the amount of sloughing or disintegration does not seriously affect the appearance of the product.

(c) *(SStd) classification.* Canned white potatoes that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1823 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned white potatoes, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1824 *Score sheet for canned white potatoes.*

Size and kind of container	-----
Container mark or identification	-----
Label	-----
Net weight (in ounces)	-----
Vacuum (in inches)	-----
Drained weight (in ounces)	-----
Style	-----
Size (of whole potatoes)	-----
Count (of whole potatoes)	-----

Factors	Score points		
Color	20	(A) 17-20 (C)[1] 14-16 (D)[1] 0-13	
Uniformity of size and shape	20	(A) 17-20 (C) 14-16 (D)[1] 0-13	
Absence of defects	40	(A) 34-40 (C)[1] 28-33 (D)[1] 0-27	
Texture	20	(A) 17-20 (C)[1] 14-16 (D)[1] 0-13	
Total score	100		
Grade	----	------------	——
Normal flavor and odor	----	------------	——

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF PROCESSED RAISINS [1]

PRODUCT DESCRIPTION, TYPES, SIZES, COLORS, AND GRADES

§ 52.1841 *Product description.* Processed raisins are dried grapes of the Vinifera varieties, such as Thompson Seedless (Sultanina), Muscat of Alexandria, Muscatel Gordo Blanco, and Sultana, which have been properly stemmed, capstemmed, and cleaned.

§ 52.1842 *Types (varieties) of processed raisins.* (a) Type I—Thompson Seedless.

(1) Unbleached (natural).

(2) Sulfur Bleached and Golden Bleached.

(3) Soda Dipped.

(b) Type II—Muscat.

(1) Seeded (seeds removed).

(2) Unseeded (loose).

(3) Soda Dipped Unseeded (Valencia).

(c) Type III—Sultana.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.1843 *Sizes of Thompson Seedless Raisins.* The sizes of Thompson Seedless Raisins are not incorporated in the grades of the finished product since size, as such, is not a factor of quality for the purposes of these grades. The common size designations and measurement requirements applicable thereto include, but are not limited to, the following:

(a) "Select" size raisins means that not less than 35 percent, by weight, but not more than 85 percent, by weight, of all the raisins will pass through round perforations $^{24}/_{64}$ inch in diameter, but not more than 5 percent, by weight, of all the raisins may pass through round perforations $^{20}/_{64}$ inch in diameter.

(b) "Small" (or "Midget") size raisins means that all of the raisins will pass through round perforations $^{24}/_{64}$ inch in diameter and not less than 90 percent, by weight, of all the raisins will pass through round perforations $^{20}/_{64}$ inch in diameter.

(c) "Mixed" size raisins means a mixture which does not meet the requirements of "Select" size.

§ 52.1844 *Colors of Sulfur Bleached and Golden Bleached Thompson Seedless Raisins.* The color of Sulfur Bleached and Golden Bleached Thompson Seedless Raisins is not a factor of quality for the purposes of these grades. The color requirements applicable to the respective color designations are as follows:

(a) "Well-bleached color" (or "Extra Fancy color") means that the raisins are practically uniform in color and may range from yellow or golden to light amber color with a predominating yellow or golden color and that not more than 1 percent, by weight, of all the raisins may be definitely dark berries.

(b) "Reasonably well-bleached color" (or "Fancy color") means that the raisins are reasonably uniform in color and may range from yellow or golden or greenish yellow to light amber wherein the predominating color may be greenish yellow or light amber and that not more than 3 percent, by weight, of all the raisins may be definitely dark berries.

(c) "Fairly well-bleached color" (or "Extra Choice color") means that the raisins are fairly uniform in color and may range from yellow or greenish yellow to amber or light greenish amber and that not more than 6 percent, by weight, of all the raisins may be definitely dark berries.

(d) "Bleached color" (or "Choice color") means that the raisins may be generally dark amber or dark greenish amber; that not more than 15 percent, by weight, of all the raisins may be definitely dark berries in Sulfur Bleached; that not more than 20 percent, by weight, of all the raisins may be definitely dark berries in Golden Bleached; and that the color may also lack uniformity.

(e) "Definitely dark berries" means raisins which are definitely darker than dark amber and characteristic of naturally "raisined" grapes.

§ 52.1845 *Grades of Thompson Seedless Raisins.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of Thompson Seedless Raisins that possess similar varietal characteristics; that in Unbleached and Soda Dipped raisins possess a good typical color; that possess a good characteristic flavor; that show development characteristic of raisins prepared from well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table I of this section):

(1) Not more than 1 piece of stem per 16 ounces of raisins may be present;

(2) Not more than 15 capstems per 16 ounces of raisins may be present;

(3) Not more than 1 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 2 percent, by weight, of raisins may be damaged;

(5) Not more than 5 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 3 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of Thompson Seedless Raisins that possess similar varietal characteristics; that in Unbleached and Soda Dipped raisins possess a reasonably good typical color; that possess a good characteristic flavor; that show development characteristic of raisins prepared from reasonably well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table I of this section):

(1) Not more than 2 pieces of stem per 16 ounces of raisins may be present;

(2) Not more than 25 capstems per 16 ounces of raisins may be present;

(3) Not more than 2 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 3 percent, by weight, of raisins may be damaged;

TABLE I—MAXIMUMS ALLOWABLE FOR DEFECTS IN TYPE I, THOMPSON SEEDLESS RAISINS

Defects	U. S. Grade A or U. S. Fancy	U. S. Grade B or U. S. Choice	U. S. Grade C or U. S. Standard	Substandard
	Maximum count (per 16 ounces)			
Pieces of stem	1	2	3	
Capstems	15	25	35	No limit.
	Maximum (by weight) (percent)			
Poorly developed, blowovers	1	2	3	No limit.
Damaged	2	3	5	Do.
Visibly sugared	5	10	15	Do.
Mold, decay, fermentation, insect infestation, imbedded dirt, or other foreign material.	3	4	5	5.
	but not more than			
Decay	1	1	2	

(5) Not more than 10 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 4 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of Thompson Seedless Raisins that possess similar varietal characteristics; that in Unbleached and Soda Dipped raisins possess a fairly good typical color; that possess a fairly good flavor; that show development characteristic of raisins prepared from fairly well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table I of this section):

(1) Not more than 3 pieces of stem per 16 ounces of raisins may be present;

(2) Not more than 35 capstems per 16 ounces of raisins may be present;

(3) Not more than 3 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 5 percent, by weight, of raisins may be damaged;

(5) Not more than 15 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 2 percent, by weight, of raisins may be affected by decay.

(d) "Substandard" is the quality of Thompson Seedless Raisins that fail to meet the requirements (see Table I of this section) of U. S. Grade C or U. S. Standard: *Provided*, That:

(1) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material.

§ 52.1846 *Sizes of Muscat Raisins.* The sizes of Muscat Raisins are not incorporated in the grades of the finished product since size, as such, is not a factor of quality for the purposes of these grades. The common size designations and measurement requirements applicable thereto include, but are not limited to, the following:

(a) *Seeded.* (1) "Select" size raisins means that not less than 30 percent, by weight, of all the raisins will not pass through round perforations $\frac{34}{64}$ inch in diameter; and the balance will pass through round perforations $\frac{34}{64}$ inch in diameter but not more than 5 percent, by weight, of all the raisins may pass through round perforations $\frac{22}{64}$ inch in diameter.

(2) "Small" (or "Midget") size raisins means that all of the raisins will pass through round perforations $\frac{34}{64}$ inch in diameter and not less than 90 percent, by weight, of all the raisins will pass through round perforations $\frac{22}{64}$ inch in diameter.

(3) "Mixed" size raisins means a mixture of sizes that do not meet the requirements of "Select" size.

(b) *Unseeded.* (1) "4 Crown" means raisins that will not pass through round perforations $\frac{42}{64}$ inch in diameter.

(2) "3 Crown" means raisins that will pass through round perforations $\frac{42}{64}$ inch in diameter but will not pass through round perforations $\frac{34}{64}$ inch in diameter.

(3) "2 Crown" means raisins that will pass through round perforations $\frac{34}{64}$ inch in diameter but will not pass through round perforations $\frac{24}{64}$ inch in diameter.

(4) "1 Crown" means raisins that will pass through round perforations $\frac{24}{64}$ inch in diameter.

§ 52.1847 *Grades of Muscat Raisins.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of Muscat Raisins that possess similar varietal characteristics; that possess a good typical color with not more than 10 percent, by weight, of raisins that may be dark reddish-brown berries in Soda Dipped Unseeded (Valencia) raisins; that possess a good characteristic flavor; that show development characteristic of raisins prepared from well-matured grapes; that contain not more than 18 percent, by weight, of moisture, except that Seeded Muscats may contain not more than 19 percent, by weight, of moisture; and that meet the following additional requirements (see Table II of this section):

(1) Not more than 1 piece of stem per 16 ounces of raisins may be present;

(2) Not more than 10 capstems per 16 ounces of raisins may be present;

(3) Not more than 12 seeds per 16 ounces of raisins in Muscat Seeded Raisins may be present;

(4) Not more than 1 percent, by weight, of raisins may be poorly developed, blowovers;

(5) Not more than 3 percent, by weight, of raisins may be damaged;

(6) Not more than 5 percent, by weight, of raisins may be visibly sugared; and

(7) Not more than 3 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided,* That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of Muscat Raisins that possess similar varietal characteristics; that possess a reaonably good typical color with not more than 15 percent, by weight, of raisins that may be dark reddish-brown berries in Soda Dipped Unseeded (Valencia) raisins; that possess a good characteristic flavor; that show development characteristic of raisins prepared from reasonably well-matured grapes; that contain not more than 18 percent, by weight, of moisture, except that Seeded Muscats may contain not more than 19 percent, by weight, of moisture; and that meet the following additional requirements (see Table II of this section):

(1) Not more than 2 stems per 16 ounces of raisins may be present;

(2) Not more than 15 capstems per 16 ounces of raisins may be present;

(3) Not more than 15 seeds per 16 ounces of raisins in Muscat Seeded Raisins may be present;

(4) Not more than 2 percent, by weight, of raisins may be poorly developed, blowovers;

(5) Not more than 4 percent, by weight, of raisins may be damaged;

(6) Not more than 10 percent, by weight, of raisins may be visibly sugared; and

(7) Not more than 4 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided,* That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of Muscat Raisins that possess similar varietal characteristics; that possess a fairly good typical color with not more than 20 percent, by weight, of raisins that may be dark reddish-brown berries in Soda Dipped Unseeded (Valencia) raisins; that possess a fairly good flavor; that show development characteristic of raisins prepared from fairly well-matured grapes; that contain not more than 18 percent, by weight, of moisture, except that Seeded Muscats may contain not more than 19 percent, by weight, of moisture; and that meet the following additional requirements (see Table II of this section):

(1) Not more than 3 stems per 16 ounces of raisins may be present;

(2) Not more than 20 capstems per 16 ounces of raisins may be present;

(3) Not more than 20 seeds per 16 ounces of raisins in Muscat Seeded Raisins may be present;

(4) Not more than 3 percent, by weight, of raisins may be poorly developed, blowovers;

(5) Not more than 5 percent, by weight, of raisins may be damaged;

(6) Not more than 15 percent, by weight, of raisins may be visibly sugared; and

(7) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided,* That:

(i) Not more than 2 percent, by weight, of raisins may be affected by decay.

TABLE II—MAXIMUMS ALLOWABLE FOR DEFECTS IN MUSCAT RAISINS

Defects	U. S. Grade A or U. S. Fancy	U. S. Grade B or U. S. Choice	U. S. Grade C or U. S. Standard	Substandard
	Maximum count (per 16 ounces)			
Pieces of stem	1	2	3	
Capstems	10	15	20	No limit.
Seeds (seeded type)	12	15	20	Do.
	Maximum (by weight) (percent)			
Poorly developed, blowovers	1	2	3	No limit.
Damaged	3	4	5	Do.
Visibly sugared	5	10	15	Do.
Mold, decay, fermentation, insect infestation, imbedded dirt, or other foreign material.	3	4	5	5.
	but not more than			
Decay	1	1	2	

(d) "Substandard" is the quality of Muscat Raisins that fail to meet the requirements (see Table II of this section) of U. S. Grade C or U. S. Standard: *Provided,* That:

(1) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material.

§ 52.1848 *Sizes of Sultana Raisins.* Size designations are not applicable to Sultana Raisins.

§ 52.1849 *Grades of Sultana Raisins.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of Sultana Raisins that possess similar varietal characteristics; that possess a good typical color; that possess a good characteristic flavor; that show development characteristic of raisins prepared from well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table III of this section):

(1) Not more than 1 stem per 16 ounces of raisins may be present;

(2) Not more than 25 capstems per 16 ounces of raisins may be present;

(3) Not more than 1 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 2 percent, by weight, of raisins may be damaged;

(5) Not more than 5 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 3 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

TABLE III—MAXIMUMS ALLOWABLE FOR DEFECTS IN SULTANA RAISINS

Defects	U. S. Grade A or U. S. Fancy	U. S. Grade B or U. S. Choice	U. S. Grade C or U. S. Standard	Substandard
	Maximum count (per 16 ounces)			
Pieces of stem	1	2	3	
Capstems	25	45	65	No limit.
	Maximum (by weight) (percent)			
Poorly developed, blowovers	1	2	3	No limit.
Damaged	2	3	5	Do.
Visibly sugared	5	10	15	Do.
Mold, decay, fermentation, insect infestation, imbedded dirt, or other foreign material.	3	4	5	5.
	but not more than			
Decay	1	1	2	

(b) "U. S. Grade B" or "U. S. Choice" is the quality of Sultana Raisins that possess similar varietal characteristics; that possess a reasonably good typical color; that possess a good characteristic flavor; that show development characteristic of raisins prepared from reasonably well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table III of this section):

(1) Not more than 2 pieces of stem per 16 ounces of raisins may be present;

(2) Not more than 45 capstems per 16 ounces of raisins may be present;

(3) Not more than 2 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 3 percent, by weight, of raisins may be damaged;

(5) Not more than 10 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 4 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 1 percent, by weight, of raisins may be affected by decay.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of Sultana Raisins that possess similar varietal characteristics; that possess a fairly good typical color; that possess a fairly good flavor; that show development characteristic of raisins prepared from fairly well-matured grapes; that contain not more than 18 percent, by weight, of moisture; and that meet the following additional requirements (see Table III of this section):

(1) Not more than 3 pieces of stem per 16 ounces of raisins may be present;

(2) Not more than 65 capstems per 16 ounces of raisins may be present;

(3) Not more than 3 percent, by weight, of raisins may be poorly developed, blowovers;

(4) Not more than 5 percent, by weight, of raisins may be damaged;

(5) Not more than 15 percent, by weight, of raisins may be visibly sugared; and

(6) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material: *Provided*, That:

(i) Not more than 2 percent, by weight, may be affected by decay.

(d) "Substandard" is the quality of Sultana Raisins that fail to meet the requirements (see Table III of this section) of U. S. Grade C or U. S. Standard: *Provided*, That:

(1) Not more than 5 percent, by weight, of raisins may be affected by mold, decay, fermentation, insect infestation (no live insects are permitted), imbedded dirt, or other foreign material.

EXPLANATIONS

§ 52.1850 *Explanation of terms.* (a) "Capstems" means small woody stems exceeding ⅛ inch in length which attach the raisins to the branches of the bunch.

(b) A "piece of stem" means a portion of the branch or main stem.

(c) "Seeds" refers to the whole, fully developed seeds which have not been removed during the processing of Muscat Seeded Raisins.

(d) "Poorly developed, blowovers" refers to berries that are immature, contain practically no flesh, are very light in weight, and have very coarse wrinkles.

(e) "Damaged" raisins means raisins affected by insect injury or injury from sunburn, scars, mechanical or other means which seriously affects the appearance, edibility, keeping quality, or shipping quality of the raisins. In Muscat Seeded Raisins, mechanical injury resulting from normal seeding operations is not considered damage.

(f) "Visibly sugared" means the accumulation of crystallized fruit sugars in the flesh of the raisin or on the surface which is readily apparent.

(g) "Mold" means mold filaments or spores (often characterized by a condition wherein the skin of the raisin appears to have been dissolved, leaving a slimy or sticky appearance, and often resulting in a positive reaction when submerged in a 3-percent hydrogen peroxide solution).

(h) "Affected by insect infestation" means that the raisins show the presence of insects, insect fragments, or excreta. No live insects are permitted.

SCORE SHEET

§ 52.1851 *Work sheet for processed raisins.*

Size of case or package	----
Markings	----
Label or brand	----
Net weight	----
Type	----
Size or sizes	----
Moisture content	----

	A	B	C	S Std	
Flavor	----	----	----	----	
Defects	Maximum (per 16 ounces)				
Pieces of stem (all types)	1	2	3	----	
Capstems:					
Thompson Seedless	15	25	35	(1)	
Muscat	10	15	20	(1)	
Sultana	25	45	65	(1)	
Seeds in Muscat Seeded only	12	15	20	(1)	

	A	B	C	S Std	
Defects	Maximum (by weight) (percent)				
Poorly developed, blowovers (all types)	1	2	3	(1)	
Damaged:					
Thompson Seedless and Sultana	2	3	5	(1)	
Muscat	3	4	5	(1)	
Visibly sugared (all types)	5	10	15	(1)	
Mold, decay, fermentation, insect infestation, imbedded dirt, foreign material (all types)	3	4	5	5	
	but not more than				
Decay (all types)	1	1	2	----	

Color	Maximum by weight (percent)		
Thompson Seedless			
Sulfur Bleached and Golden Bleached:			
Well-bleached (ex Fcy)	1	Definitely dark berries.	
Reasonably well-bleached (Fancy).	3		
Fairly well-bleached (Ex Choice).	6		
Sulfur Bleached:			
Bleached (Choice)	15		
Golden Bleached:			
Bleached (Choice)	20		
Muscat			
Soda Dipped Unseeded:			
Grade A	10	Darkreddish brown berries.	
Grade B	15		
Grade C	20		
Grade	----------------		

[1] No limit.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN RASPBERRIES [1]

PRODUCT DESCRIPTION, TYPES, AND GRADES

§ 52.1871 *Product description.* Frozen raspberries are prepared from the properly ripened fresh fruit of the plant (Genus rubus); are stemmed and cleaned; may be packed with or without packing media; and are frozen and stored at temperatures necessary for the preservation of the product.

§ 52.1872 *Types (colors) of frozen raspberries.* (a) "Red" or "red raspberries" are red or reddish purple in color.

(b) "Black" or "black raspberries" are black in color.

§ 52.1873 *Grades of frozen raspberries (not for manufacturing).* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen raspberries that possess similar varietal characteristics; possess a bright, practically uniform, typical color; are practically free from defects; possess a good character; possess a normal flavor and odor; and score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen raspberries that possess similar varietal characteristics; possess a reasonably bright, reasonably uniform, typical color; are reasonably free from defects; possess a reasonably good character; possess a normal flavor and odor; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S Grade D" or "Substandard" is the quality of frozen raspberries that fail to meet the requirements of "U. S. Grade B" or "U. S. Choice."

§ 52.1874 *Grades of frozen raspberries for manufacturing.* (a) "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" is the quality of frozen raspberries that possess similar varietal characteristics; that possess a bright, practically uniform, typical color; that are practically free from defects for the purposes of manufacturing; that possess a good character for the purposes of manufacturing; and that possess a normal flavor and odor.

(b) "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" is the quality of frozen raspberries that possess similar varietal characteristics; that possess a reasonably bright, reasonably uniform, typical color; that are reasonably free from defects for the purposes of manufacturing; that possess a reasonably good character for the purposes of manufacturing; and that possess a normal flavor and odor.

(c) "U. S. Grade D for Manufacturing" or "Substandard for Manufacturing" is the quality of frozen raspberries that fail to meet the requirements of "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing."

FACTORS OF QUALITY

§ 52.1875 *Ascertaining the score and grade for frozen raspberries (not for manufacturing).* (a) The grade of frozen raspberries is determined immediately after thawing to the extent that the units may be separated easily. The score and grade of frozen raspberries may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Color, absence of defects, and character.

(b) The relative importance of each factor has been expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	Points
Color	40
Absence of defects	40
Character	20
Total score	100

(c) "Normal flavor and odor" means that the raspberries are free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1876 *Ascertaining the score of each factor for frozen raspberries (not for manufacturing).* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "34 to 40 points" means 34, 35, 36, 37, 38, 39, or 40 points).

§ 52.1877 *Color*—(a) *(A) classification.* Frozen raspberries that possess a bright, practically uniform, typical color may be given a score of 34 to 40 points. "Bright, practically uniform, typical color" means that the raspberries possess a bright and good characteristic color; that not more than 5 percent, by weight, of the raspberries vary markedly from the intensity and luster of the characteristic color of well-ripened raspberries; and that none of the raspberries possess a grey cast or darkening characteristic of oxidation or over-maturity.

(b) *(B) classification.* If the frozen raspberries possess a reasonably bright, reasonably uniform, typical color, a score of 28 to 33 points may be given. Frozen raspberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably bright, reasonably uniform, typical color" means that the raspberries possess a reasonably bright, reasonably good characteristic color; that not more than 10 percent, by weight, of the raspberries vary markedly from the intensity and luster of the characteristic color of well-ripened raspberries; and that the raspberries may possess a slight grey cast or slight darkening characteristic of oxidation or overmaturity.

(c) *(SStd) classification.* Frozen raspberries that are definitely dull or off-color or that fail to meet the requirements of paragraph (b) of this section, may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(d) *Evaluation of score points.* The evaluation of the score points for the factor of color may be determined from Table No. I of this section which indicates the score range in the respective grades and the maximum allowances for frozen raspberries that vary markedly from the intensity and luster of the characteristic color of well-ripened raspberries.

TABLE NO. I

Grade	Score points	Typical color	Marked variation from color of well-ripened raspberries
			Maximum (by weight) (percent)
U. S. Grade A or U. S. Fancy	40	Bright, good characteristic color; none may possess a grey cast or darkening (oxidation or overmaturity).	None
	39		¼
	38		1
	37		2
	36		3
	35		4
	34		5
U. S. Grade B or U. S. Choice	33	Reasonably bright, reasonably good; may possess slight grey cast or slight darkening (oxidation or overmaturity).	5½
	32		6
	31		7
	30		8
	29		9
	28		10
U. S. Grade D or Substandard	27 or less	More than the allowances permitted for 28 points.	

§ 52.1878 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, caps and portions thereof, sepal-like bracts and portions thereof, stems, undeveloped raspberries, and damaged raspberries.

(1) "Harmless extraneous material" means vegetable substances such as weeds, grass, and leaves and any portions thereof that are harmless.

(2) A "cap" means a loose or attached full cap or a portion of a cap to which at least one sepal-like bract or portion thereof is attached. A "stem" that is attached to the cap is considered a separate defect.

(3) A "stem" means a stem, either loose or attached, that is longer than ¼ inch.

(4) An "undeveloped raspberry" means a raspberry or a portion of a raspberry that is shriveled or in which more

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

than one-fourth of the raspberry possesses hard or undeveloped drupelets or that possesses deformed areas which materially affect either the appearance or the edibility of the product.

(5) A "damaged raspberry" means a raspberry or a portion of a raspberry that is damaged by bruises or by pathological, insect, or other injury or is damaged by other means which materially affect either the appearance or the edibility of the product. "Damage" includes any surface blemish or blemishes on a raspberry which in the aggregate exceed that of a circle ¼ inch in diameter or any noticeable blemish, regardless of area, that extends into the fruit tissue. Minute, insignificant injuries are not considered as damage.

(6) "Area" means the aggregate surface covered by the material stated when such material or portions thereof are placed in a contiguous position with no intervening spaces.

(b) (*A*) *classification.* Frozen raspberries that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; and not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and that there may be present not more than a total of 5 percent, by weight, of raspberries that are undeveloped raspberries and damaged raspberries.

(c) (*B*) *classification.* If the frozen raspberries are reasonably free from defects, a score of 28 to 33 points may be given. Frozen raspberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; and not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and that there may be present not more than a total of 10 percent, by weight, of raspberries that may be undeveloped raspberries and damaged raspberries.

(d) (*SStd*) *classification.* Frozen raspberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) *Evaluation of score points.* The evaluation of the score points for the factor of absence of defects may be determined from Table No. II which indicates the maximum allowance for each class of defects for the score indicated.

§ 52.1879 *Character*—(a) *General.* The factor of character refers to the texture and degree of maturity and degree of disintegration as evidenced by crushed raspberries.

(1) A "crushed" raspberry is a raspberry in which more than 50 percent of the drupelets are crushed, broken, or detached, or if the normal shape of the raspberry is otherwise seriously affected or destroyed.

(b) (*A*) *classification.* Frozen raspberries that possess a good character may be given a score of 17 to 20 points. "Good character" means that the raspberries are mature, well-developed, and practically intact to the extent that not more than 5 percent, by weight, of the raspberries may be slightly immature or slightly over-mature; that the raspberries are fleshy and tender; that the raspberries and accompanying liquor, if any, are practically free from detached seed cells; that not more than 10 percent, by weight, of red raspberries may be crushed; and that not more than 5 percent, by weight, of black raspberries may be crushed.

(c) (*B*) *classification.* If the frozen raspberries have a reasonably good character, a score of 14 to 16 points may be given. Frozen raspberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the raspberries are reasonably mature, reasonably well-developed, and reasonably intact to the extent that not more than 10 percent, by weight, of the raspberries may be slightly immature or slightly over-mature; that the raspberries are reasonably fleshy and reasonably tender; that the raspberries and accompanying liquor, if any, are reasonably free from detached seed cells; that not more than 20 percent, by weight, of red raspberries may be crushed; and that not more than 15 percent, by weight, of black raspberries may be crushed.

(d) (*SStd*) *classification.* Frozen raspberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) *Evaluation of score points.* The evaluation of the score points for the factor of character may be determined from Table No. III of this section which indicates the general requirements for texture and intactness, and the maximum allowances for variation in maturity and for crushed raspberries for the score indicated.

TABLE NO. II—ALLOWANCE FOR DEFECTS

Grade	Score points	Harmless extraneous material (leaves, etc.), caps, sepal-like bracts and portions thereof	Harmless extraneous material (weeds, grass) and stems (including stems over ½ inch)			Undeveloped and damaged raspberries
		Maximum				
		Per 16 ounces of net weight				By weight
			Stems		Harmless material	
			Total	Over ½"		
						Percent
U. S. Grade A or U. S. Fancy.	40	None	None	None	None	None
	39	⅛ square inch	1	None	None	½
	38	⅛ square inch	1	None	None	1
	37	⅛ square inch	1	None or 1 piece		2
	36	¼ square inch	2	1 or 1 piece		3
	35	¼ square inch	2	1 or 1 piece		4
	34	¼ square inch	2	1 or 1 piece		5
U. S. Grade B or U. S. Choice.	33	⅜ square inch	3	1 or 1 piece		5½
	32	⅜ square inch	3	1 or 1 piece		6
	31	⅜ square inch	3	1 or 1 piece		7
	30	½ square inch	4	1 or 1 piece		8
	29	½ square inch	4	1 or 1 piece		9
	28	½ square inch	4	1 or 1 piece		10
U. S. Grade D or Substandard.	27 or less	More than the allowances permitted for 28 points				

TABLE NO. III—CHARACTER

Grade	Score points	General description of texture and intactness	Slightly immature and slightly overmature	Crushed	
				Red raspberries	Black raspberries
			Maximum (by weight)		
			Percent	*Percent*	*Percent*
U. S. Grade A or U. S. Fancy.	20	Mature, well-developed, practically intact, fleshy and tender, practically free from seed cells.	2	4	2
	19		3	6	3
	18		4	8	4
	17		5	10	5
U. S. Grade B or U. S. Choice.	16	Reasonably mature, reasonably well-developed, reasonably intact, reasonably fleshy and tender, reasonably free from seed cells.	7	12	9
	15		9	16	12
	14		10	20	15
U. S. Grade D or Substandard.	13 or less	More than the allowances permitted for 14 score points.			

§ 52.1880 *Determination of the grades of frozen raspberries for manufacturing.* (a) The grade of frozen raspberries for manufacturing is determined immediately after thawing a sample to the extent that the units may be separated easily. The grade of frozen raspberries for manufacturing is ascertained by considering the following factors, and for which no scoring system is provided:

Color, absence of defects, and character.

(b) "Normal flavor and odor" means that the raspberries are free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1831 *Ascertaining the rating of each factor for frozen raspberries for manufacturing.* (See Table No. IV, § 52.1884, which is a brief summary of requirements for grades of frozen raspberries for manufacturing).

§ 52.1882 *Color*—(a) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen raspberries shall possess a bright, practically uniform, typical color. "Bright, practically uniform, typical color" means that the raspberries possess a bright and good characteristic color; that not more than 5 percent, by weight, of the raspberries vary markedly from the intensity and luster of the characteristic color of well-ripened raspberries; and that none of the raspberries possess a grey cast or darkening characteristic of oxidation or over-maturity.

(b) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen raspberries shall possess a reasonably bright, reasonably uniform typical color. "Reasonably bright, reasonably uniform, typical color" means that the raspberries possess a reasonably bright, reasonably good characteristic color; that not more than 10 percent, by weight, of the raspberries vary markedly from the intensity and luster of the characteristic color of well-ripened raspberries; and that the raspberries may possess a slight grey cast or slight darkening characteristic of oxidation or over-maturity.

(c) *(SStd) classification.* Frozen respberries for manufacturing that fail to meet the requirements of paragraph (b) of this section for the factor of color shall be considered U. S. Grade D for Manufacturing or Substandard for Manufacturing.

§ 52.1883 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, caps and portions thereof, sepal-like bracts and portions thereof, stems, undeveloped raspberries, and damaged raspberries.

(1) "Harmless extraneous material" means vegetable substances such as weeds, grass, and leaves and any portions thereof that are harmless.

(2) A "cap" means a loose or attached full cap or a portion of a cap to which at least one sepal-like bract or portion thereof is attached. A "stem" that is attached to the cap is considered a separate defect.

(3) A "stem" means a stem, either loose or attached, that is longer than ¼ inch.

(4) An "undeveloped raspberry" means a raspberry or a portion of a raspberry that is shriveled or in which more than one-fourth of the raspberry possesses hard undeveloped drupelets or that possesses deformed areas which materially affect either the appearance or the edibility of the product.

(5) A "damaged raspberry" means a raspberry or a portion of a raspberry that is damaged by bruises or pathological, insect, or other injury or is damaged by other means which materially affect either the appearance or the edibility of the product. "Damage" includes any surface blemish or blemishes on a raspberry which in the aggregate exceed that of a circle ¼ inch in diameter or any noticeable blemish, regardless of area, that extends into the fruit tissue. Minute, insignificant injuries are not considered as damage.

(6) "Area" means the aggregate surface covered by the material stated when such material or portions thereof are placed in a contiguous position with no intervening spaces.

(b) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen raspberries shall be practically free from defects for the purposes of manufacturing. "Practically free from defects for the purposes of manufacturing" means that there may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; and not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and that there may be present not more than a total of 10 percent, by weight, of raspberries that are undeveloped raspberries and damaged raspberries.

(c) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen raspberries shall be reasonably free from defects for the purposes of manufacturing. "Reasonably free from defects for the purposes of manufacturing" means that there may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; and not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and that there may be present not more than a total of 20 percent, by weight, of raspberries that are undeveloped raspberries and damaged raspberries.

(d) *(SStd) classification.* Frozen raspberries for manufacturing that fail to meet the requirements of paragraph (c) of this section for the factor of absence of defects shall be considered U. S. Grade D for Manufacturing or Substandard for Manufacturing.

§ 52.1884 *Character*—(a) *General.* The factor of character refers to the texture and degree of maturity and degree of disintegration as evidenced by crushed raspberries.

(1) A "crushed" raspberry is a raspberry in which more than 50 percent of the druplets are crushed, broken, or detached, or if the normal shape of the raspberry is otherwise seriously affected or destroyed.

TABLE NO. IV—BRIEF SUMMARY OF REQUIREMENTS FOR GRADES OF FROZEN RASPBERRIES FOR MANUFACTURING

Grades	Color	
	Typical color	Marked variation from color of well-ripened raspberries
		Maximum (by weight) (percent)
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	Bright, good characteristic color; none may possess a grey cast or darkening (oxidation or overmaturity).	5
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	Reasonably bright, reasonably good; may possess a slight grey cast or slight darkening (oxidation or overmaturity).	10

Grades	Absence of defects		
	Harmless extraneous material (leaves, etc.), caps, sepal-like bracts and portions thereof	Harmless extraneuos material (weeds, grass) and stems (including stems over ½ inch)	Undeveloped and damaged raspberries
	Maximum		
	Per 16 ounces of net weight		By weight
			Percent
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	¼ square inch	2 stems, including 1 stem that may exceed ½ inch, or 1 piece harmless material.	10
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	½ square inch	4 stems, including 1 stem that may exceed ½ inch, or 1 piece harmless material.	20

TABLE NO. IV—BRIEF SUMMARY OF REQUIREMENTS FOR GRADES OF FROZEN RASPBERRIES FOR MANUFACTURING—Continued

Grades	Character		
	General description of texture and intactness	Slightly immature and slightly over-mature	Crushed raspberries
		Maximum (by weight) (percent)	
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	Good character for purposes of manufacturing: reasonably mature, reasonably well-developed, reasonably intact, reasonably fleshy and reasonably tender, reasonably free from seed cells.	10	25
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	Reasonably good character for purposes of manufacturing: fairly mature, fairly well-developed, fairly intact, fairly fleshy and fairly tender, fairly free from seed cells.	15	50

(b) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen raspberries shall possess a good character for the purposes of manufacturing. "Good character for the purposes of manufacturing" means that the raspberries are reasonably mature, reasonably well-developed, and reasonably intact to the extent that not more than 10 percent, by weight, of the raspberries may be slightly immature or slightly over-mature; that the raspberries are reasonably fleshy and reasonably tender; that the raspberries and accompanying liquor, if any, are reasonably free from detached seed cells; and that not more than 25 percent, by weight, of the raspberries may be crushed.

(c) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen raspberries shall possess a reasonably good character for the purposes of manufacturing. "Reasonably good character for the purposes of manufacturing" means that the raspberries are fairly mature, fairly well-developed, and fairly intact to the extent that not more than 15 percent, by weight, of the raspberries may be slightly immature or slightly over-mature; that the raspberries are fairly fleshy and fairly tender; that the raspberries and accompanying liquor, if any, are fairly free from detached seed cells; that not more than 50 percent, by weight, of the raspberries may be crushed.

(d) *(SStd) classification.* Frozen raspberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D for Manufacturing or Substandard for Manufacturing.

LOT CERTIFICATION TOLERANCES

§ 52.1885 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen raspberries, the grade for such lot will be determined by averaging the total scores of all containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1886 *Score sheet for frozen raspberries (not for manufacturing).*

Size and kind of container ---- ----
Container mark or identification ---- ----
Label (style of pack: Ratio of fruit to sugar, etc., if shown) ---- ----
Type (color), if known ---- ----

Factors	Score points			
Color	40	(A)	34-40	
		(B)	[1] 28-33	
		(D)	[1] 0-27	
Absence of defects	40	(A)	34-40	
		(B)	[1] 28-33	
		(D)	[1] 0-27	
Character	20	(A)	17-20	
		(B)	[1] 14-16	
		(D)	[1] 0-13	
Total score	100			

Normal flavor and odor ---- ----
Grade ---- ----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED SPINACH [1]

IDENTITY AND GRADES

§ 52.1901 *Identity.* "Canned spinach" means canned spinach as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.1902 *Grades of canned spinach.*[2] (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned spinach that possesses a good color, possesses a good character, a normal flavor and odor, is practically free from defects, and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned spinach that possesses a fairly good color, possesses a fairly good character, a normal flavor and odor, is fairly free from defects, and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned spinach that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.1903 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purpose of these grades. It is recommended that each container be filled with spinach as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

§ 52.1904 *Recommended drained weight.* (a) The drained weight recommendations in Table No. I of this section are not incorporated in the grades of the finished products, since drained weight, as such, is not a factor of quality for the purpose of these grades.

(b) The drained weight of canned spinach is determined by emptying the contents of the container upon a No. 8 sieve of proper diameter and allowing to drain for two minutes. A sieve 8 inches in diameter is used for the No. 2½ size can (401 x 411) and for containers of equal or smaller sizes; and a sieve 12 inches in diameter is used for containers larger than the No. 2½ size can.

TABLE NO. I—RECOMMENDED MINIMUM DRAINED WEIGHTS (IN OUNCES) OF SPINACH

Container size or designation:	*Drained weight*
8 Z Tall	5¼
No. 1 (Picnic)	7
No. 1 Tall	10½
No. 303	10¾
No. 2	13
No. 2½	19
No. 10	60
No. 303 jar	11¼
No. 2½ jar	18¾

FACTORS OF QUALITY

§ 52.1905 *Ascertaining the grade.* (a) The grade of canned spinach is ascertained by considering in conjunction with the requirements of the respective grade, the respective ratings of the factors of color, absence of defects, and character.

(b) The relative importance of each factor is expressed numerically on a scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	30
Absence of defects	40
Character	30
Total score	100

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

[2] These grades have been so drafted that they may be used in grading other greens such as canned turnip, mustard, and beet greens, and canned kale. In grading these products, however, the typical characteristics of the vegetable shall be considered.

(c) "Normal flavor and normal odor" means that the product is free from objectionable odors and objectionable flavors of any kind.

§ 52.1906 *Ascertaining the rating for each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "26 to 30 points" means 26, 27, 28, 29, or 30 points).

§ 52.1907 *Color*—(a) *(A) classification.* Canned spinach that possesses a good color may be given a score of 26 to 30 points. "Good color" means that the color is the typical green color of young and tender canned spinach and that there is not more than a slight variation in green color.

(b) *(C) classification.* If the canned spinach possesses a fairly good color, a score of 22 to 25 points may be given. Canned spinach that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the canned spinach possesses a fairly typical green color that may be variable or slightly dull, but not to the extent that the appearance of the product is seriously affected.

(c) *(SStd) classification.* Canned spinach that is definitely off color for any reason or that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 21 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1908 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, sand, or silt, seed heads, grass and weeds, crowns of root stubs, root stubs, and major and minor damage. Minute insignificant injuries shall not be considered as damage. The evaluation of the score points for the factor of absence of defects may be determined from Table No. II of this section which prescribes the maximum score which may be allowed for specified defects.

(1) "Grit, sand, or silt" means any particles of earthy material.

(2) "Major damage" means any yellow, brown, or other discoloration which covers an aggregate area of not less than 1 square inch on one surface of any leaf, portion of leaf, stem, or portion of stem, or any pathological damage, or insect injury affecting any leaf, portion of a leaf, stem, or portion of a stem.

(3) "Minor damage" means any yellow, brown, or other discoloration which covers an aggregate area of less than 1 square inch on one surface of any leaf, portion of a leaf, stem, or portion of a stem.

TABLE NO. II—DEFECTS

Range of score points	Score points	Grit, sand, or silt	Total number of root stubs—per 60 ounces drained weight	Damage		Total number of seed heads	Grass and weeds		Total number of crowns of roots
				Total	Total				
				Per 13 ounces drained weight					
				Major and minor	Major		Aggregate length	Noticeably detract from appearance of product	
							Inches	*Inches*	
33–40	40	None	None	None	None	None	None	None	None
	39	None	None	1–2	1	None	1	None	None
	38	None	1	3	2	1	2	1	1
	37	None	1	4	2	1	3	1	1
	36	None	2	5	3	1	4	2	1
	35	None	2	6	3	2	5–6	2	2
	34	None	3	7	4	2	7–8	3	2
	33	None	3	8	4	2	9–10	3	2
26–32	32	Trace	4	9–10	5	3	11	4	3
	31	Trace	4	9–10	5	3	12	4	3
	30	Trace	5	11–12	6	3	13	5	3
	29	Trace	5	11–12	6	3	14	6	3
	28	Trace	5	13–14	7	4	15–16	7	4
	27	Trace	6	13–14	7	4	17–18	8	4
	26	Trace	6	15–16	8	4	19–20	9	4
0–41	25 or less	More than the allowances permitted for 26 score points							

(b) *(A) classification.* Canned spinach that is practically free from defects may be given a score of 33 to 40 points. "Practically free from defects" means that the product contains no grit, sand, or silt that affects the eating quality or appearance of the spinach; that for each 60 ounces of drained weight there may be present not more than 3 root stubs; and that for each 13 ounces of drained weight there may be present:

(1) Not more than 2 tender crowns which have been cut from root stubs with leaf clusters attached;

(2) Major and minor damage affecting not more than 8 leaves or stems or portions of leaves or stems, including major damage affecting not more than 4 leaves or stems or portions of leaves and stems;

(3) Not more than 2 seed heads; and

(4) Grass or weeds aggregating not more than 10 inches in length of which not more than 3 inches may be coarse grass or weeds and none of the coarse grass or weeds may be more than ⅜ inch in width measured at the widest point transversely to the long axis.

(c) *(C) classification.* If the canned spinach is fairly free from defects, a score of 26 to 32 points may be given. Canned spinach that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the product may contain a trace of grit, sand, or silt that does not seriously affect the eating quality or appearance of the spinach; that for each 60 ounces of drained weight there may be present not more than 6 root stubs; and that for each 13 ounces of drained weight there may be present:

(1) Not more than 4 tender crowns which have been cut from root stubs with leaf clusters attached;

(2) Major and minor damage affecting not more than 16 leaves or stems or portions of leaves or stems, including major damage affecting not more than 8 leaves or stems or portions of leaves or stems;

(3) Not more than 4 seed heads; and

(4) Grass or weeds aggregating not more than 20 inches in length of which not more than 9 inches may be coarse grass or weeds and none of the coarse grass or weeds may be more than ⅜ inch in width measured at the widest point transversely to the long axis.

(d) *(SStd) classification.* Canned spinach that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 25 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1909 *Character*—(a) *General.* The factor of character refers to the condition and structural characteristics of the spinach leaves and stems or portions of leaves and stems. The degree of freedom from coarse or tough leaves and stems or coarse or tough portions of leaves and stems, the tenderness of the spinach, and the degree of raggedness, disintegration, or (except with respect to chopped spinach) shredding of leaves and stems are considered under this factor.

(b) *(A) classification.* Canned spinach that possesses a good character may be scored 26 to 30 points. "Good character" means that the spinach is tender and is practically free from coarse or tough leaves and stems or coarse or tough portions of leaves and stems and that the appearance of the product is not materially affected by ragged, disintegrated or shredded leaves or stems or portions of leaves or stems.

(c) *(C) classification.* If the canned spinach possesses a fairly good character, a score of 22 to 25 points may be given. Canned spinach that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the spinach may be fairly tender, and that the appearance of the product is not seriously affected by ragged, disintegrated, or shredded leaves or stems or portions of leaves or stems.

(d) *(SStd) classification.* Canned spinach that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 21 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1910 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned spinach, the grade for such lot will be determined by averaging the scores of the containers comprising the sample, if:

(1) Not more than one-sixth of the containers comprising the sample fail to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers in the lot meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act, and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1911 *Score sheet for canned spinach.*

Size and kind of container	------
Container code or marking	------
Label	------
Net weight (ounces)	------
Vacuum (inches)	------
Drained weight (ounces)	------

Factors	Score points			
Color	30	(A)	26-30	
		(C)	[1] 22-25	
		(D)	[1] 0-21	
Absence of defects	40	(A)	33-40	
		(C)	[1] 26-32	
		(D)	[1] 0-25	
Character	30	(A)	26-30	
		(C)	[1] 22-25	
		(D)	[1] 0-21	
Total score	100			

Normal flavor and odor	------
Grade	------

[1] Indicates limiting rule within classification.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN SPINACH[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1921 *Product description.* Frozen spinach is the product prepared from the whole or cut, clean, sound, and succulent leaves and stems of fresh spinach (Spinacea oleracea) by sorting, trimming, washing, and blanching such leaves and stems, which is then frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.1922 *Styles of frozen spinach.* (a) "Whole" or "whole leaf" spinach is the style of frozen spinach that consists substantially of the leaf and adjoining portion of the leaf.

(b) "Cut" or "chopped" is the style of frozen spinach that consists of the leaf and adjoining portion of the leaf which has been cut or chopped into small pieces.

§ 52.1923 *Grades of frozen spinach.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen spinach that possesses a good flavor and odor, that possesses a good color, that possesses a good character, that is practically free from defects, and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen spinach that possesses a fairly good flavor and odor, that possesses a reasonably good color, that possesses a reasonably good character, that is reasonably free from defects, and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen spinach that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.1924 *Ascertaining the grade.* (a) The grade of frozen spinach may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings of the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	*Points*
Color	20
Absence of defects	60
Character	20
Total score	100

(c) The score for the factors of color, absence of defects, and character is determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. A representative sample of the product is cooked for examination with respect to flavor and odor.

(d) "Good flavor and odor" means that the product, after cooking, has a good characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor and odor" means that the product after cooking may be lacking in good flavor and odor, but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1925 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1926 *Color*—(a) *(A) classification.* Frozen spinach that possesses a good color may be given a score of 17 to 20 points. Good color means that the frozen spinach possesses a practically uniform bright characteristic green color.

(b) *(B) classification.* If the frozen spinach possesses a reasonably good color, a score of 14 to 16 points may be given. Frozen spinach that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the frozen spinach possesses a reasonably uniform characteristic green color and may be variable in color but not to the extent that the appearance of the frozen product is materially affected.

(c) *(SStd) classification.* Frozen spinach that is definitely off color for any reason, or that fails to meet the requirements of paragraph (b) of this section, may be given a score of 0 to 13 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1927 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from grit, sand, or silt, seed heads, grass and weeds, crowns of root stubs, root stubs, and major and minor damage.

(1) "Grit, sand, or silt" means any particle of earthy material.

(2) "Minor damage" means damage by any yellow, brown, or other discoloration which covers an aggregate area of less than 1 square inch on one surface of any leaf, portion of a leaf, stem, or portion of a stem (except minute insignificant injuries which shall not be considered as minor damage), or damage affecting any leaf, portion of a leaf, stem, or portion of a stem, to the extent that the appearance or eating quality of the unit is materially affected regardless of the area.

(3) "Major damage" means damage by any yellow, brown, or other discoloration which covers an aggregate area of 1 square inch or more on one surface of any leaf, portion of a leaf, stem, or portion of a stem, or any insect injury or other damage affecting any leaf, portion of a leaf, stem, or portion of a stem to the extent that the appearance or eating quality of the unit is seriously affected regardless of area.

(b) *(A) classification.* Frozen spinach that is practically free from defects may be given a score of 51 to 60 points. "Practically free from defects" has the following meanings with respect to the following styles of frozen spinach:

(1) *Whole or whole leaf.* No grit, sand, or silt may be present that affects the appearance or eating quality of the frozen spinach, and for each 48 ounces of the product there may be present not more than one root stub, and for each 16 ounces of the product there may be present:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(i) Not more than 2 tender crowns of roots with leaf clusters attached;

(ii) Major and minor damage affecting not more than 8 leaves and stems or portions of leaves and stems, including major damage affecting not more than 4 leaves and stems or portions of leaves and stems;

(iii) Not more than 2 seed heads; and

(iv) Grass and weeds aggregating not more than 10 inches in length of which not more than 3 inches may be grass and weeds which detract materially from the appearance of the product.

(2) *Cut or chopped.* No grit, sand, or silt may be present that affects the appearance or eating quality of the frozen spinach; minor damage, major damage, seed heads, grass, weeds, crowns of root stubs, and root stubs, or pieces thereof, may be present that do not materially affect the appearance or eating quality of the product.

(c) (*B*) *classification.* If the frozen spinach is reasonably free from defects a score of 42 to 50 points may be given. Frozen spinach that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meanings with respect to the following styles of frozen spinach:

(1) *Whole or whole leaf.* A trace of grit, sand, or silt may be present that does not materially affect the appearance or eating quality of the frozen spinach; for each 48 ounces of the product there may be present not more than 3 root stubs and for each 16 ounces of the product there may be present:

(i) Not more than 4 tender crowns of roots with leaf clusters attached;

(ii) Major and minor damage affecting not more than 16 leaves and stems, including major damage affecting not more than 8 leaves and stems or portions of leaves and stems;

(iii) Not more than 4 seed heads; and

(iv) Grass and weeds aggregating not more than 15 inches in length of which not more than 6 inches may be grass and weeds which detract materially from the appearance of the product.

(2) *Cut or chopped.* A trace of grit, sand, or silt may be present that does not materially affect the appearance or eating quality of the frozen spinach; minor damage, major damage, seed heads, grass, weeds, crowns of root stubs, and root stubs, or pieces thereof, may be present that do not seriously affect the appearance or eating quality of the product.

(d) (*SStd*) *classification.* Frozen spinach that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 41 points and shall not be graded above substandard regardless of the total score for the product (this is a limiting rule).

§ 52.1928 *Character*—(a) *General.* The factor of character refers to the tenderness and condition of the spinach leaves and stems or portions of leaves and stems. The degree of freedom from coarse or tough leaves and stems or coarse or tough portions of leaves and stems, and the degree to which the appearance may be affected by ragged and torn leaves and stems or ragged and torn portions of leaves and stems, are considered under this factor.

(b) (*A*) *classification.* Frozen spinach that possess a good character may be scored 17 to 20 points. "Good character" means that the spinach is tender and practically free from coarse or tough leaves and stems or coarse or tough portions of leaves and stems and the appearance of the product is not materially affected by ragged and torn leaves and stems or ragged and torn portions of leaves and stems.

(c) (*B*) *classification.* If the frozen spinach possesses a reasonably good character a score of 14 to 16 points may be given. Frozen spinach that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the spinach may possess a few coarse or tough leaves and stems or coarse or tough portions of leaves and stems, and the appearance of the product may be materially but not seriously affected by shredded, ragged, or disintegrated leaves and stems or portions of leaves and stems.

(d) (*SStd*) *classification.* Frozen spinach that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1929 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen spinach, the grade for such lot will be determined by averaging the total score of all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample fall more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1930 *Score sheet for frozen spinach.*

Container size			
Container code or marking			
Label			
Net weight (ounces)			
Factors	Score Points		
Color	20	(A) 17-20 (B) [1] 14-16 (SStd.) [1] 0-13	
Absence of defects	60	(A) 51-60 (B) [1] 42-50 (SStd.) [1] 0-41	
Character	20	(A) 17-20 (B) [1] 14-16 (SStd.) [1] 0-13	
Total score	100		
Grade			
Flavor and odor			

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN COOKED SQUASH[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.1941 *Product description.* Frozen cooked squash is the clean, sound, properly matured product made from varieties of fall or late type squash which have been properly prepared by washing, cutting, cleaning, steaming, reducing to a pulp and removing seed, and fiber. The product is then frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product.

§ 52.1942 *Grades of frozen cooked squash.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen cooked squash that possesses a good consistency; that possesses a good color; that possesses a good finish; that is practically free from defects; that possesses a good flavor and odor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this section.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen cooked squash that possesses a reasonably good consistency; that possesses a reasonably good color; that possesses a reasonably good finish; that is reasonably free from defects; that possesses a fairly good flavor and odor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this section.

(c) "Substandard" is the quality of frozen cooked squash that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.1943 *Ascertaining the grade.* (a) The grade of frozen cooked squash may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of consistency, color, finish, and absence of defects.

(b) The relative importance of each scoring factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Factors:	Points
Consistency	30
Color	20
Finish	20
Absence of defects	30
Total score	100

(c) The scores for the factors of consistency, color, finish, and absence of defects are determined after the frozen cooked squash is heated in a double boiler, or in a covered pan until thoroughly warmed and completely free from ice crystals. The warmed product is then stirred to blend all separated liquid into a uniform mixture. The requirements for flavor and odor are also ascertained on the warmed product.

(d) "Good flavor and odor" means that the product after heating, has a good, characteristic normal flavor and odor and is free from objectionable flavors, and objectional odors of any kind.

(e) "Reasonably good flavor and odor" means that the product, after heating, may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1944 *Ascertaining the ratings for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1945 *Consistency*—(a) *(A) classification.* Frozen cooked squash that possesses a good consistency may be given a score of 26 to 30 points. "Good consistency" means that the warmed mixed squash, after emptying from a container to a dry flat surface, forms a well-mounded mass, and that at the end of two minutes after emptying on such surface there is not more than a slight separation of free liquor.

(b) *(B) classification.* If the frozen cooked squash possesses a reasonably good consistency, a score of 21 to 25 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good consistency" means that the warmed mixed squash after emptying from the container to a dry flat surface, may be reasonably stiff, but not excessively stiff; forms a moderately mounded mass, and that at the end of two minutes, after emptying on such surface, there may be a moderate, but not excessive separation of free liquor.

(c) *(SStd) classification.* Frozen cooked squash that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 20 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1946 *Color*—(a) *(A) classification.* Frozen cooked squash that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the color of the warmed mixed squash possesses a practically uniform, bright, typical color; and is free from discoloration due to oxidation, or other causes.

(b) *(B) classification.* If the frozen cooked squash possesses a reasonably good color, a score of 14 to 16 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the color of the warmed cooked squash possesses a reasonably uniform, reasonably bright, typical color, and the color may be variable or slightly dull but is not off-color.

(c) *(SStd) classification.* Frozen cooked squash that is off-color for any reason or fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1947 *Finish*—(a) *General.* The factor of finish refers to the texture of the product and from freedom from hardness of the squash particles.

(b) *(A) classification.* Frozen cooked squash that possesses a good finish may be given a score of 17 to 20 points. "Good finish" means that the warmed mixed squash has an even texture, is granular but not lumpy, pasty or "salvy", and the squash particles are not hard.

(c) *(B) classification.* If the frozen cooked squash possesses a reasonably good finish, a score of 14 to 16 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good finish" means that the warmed mixed squash has an even texture, may lack granular characteristics, may be slightly pasty or slightly "salvy" but not decidedly pasty or decidedly "salvy," and the squash particles are not hard.

(d) *(SStd) classification.* Frozen cooked squash that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1948 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from sand, grit, or silt, pieces of seed, fiber, and from dark or off-colored particles.

(1) "Grit, sand, or silt" means any particle of earthy material.

(b) *(A) classification.* Frozen cooked squash that is practically free from defects may be given a score of 25 to 30 points. "Practically free from defects" means that no grit, sand, or silt may be present that affects the appearance or eating quality of the frozen cooked squash, and that the number, size and color of the other aforesaid defects present individually or collectively do not more than slightly affect the appearance or eating quality of the product.

(c) *(B) classification.* Frozen cooked squash that is reasonably free from defects may be given a score of 21 to 24 points. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means a trace of grit, sand, or silt may be present that does not materially affect the appearance or eating quality of the frozen cooked squash, and that any of the other aforesaid defects present individually or collectively may be noticeable but are not so large, so numerous, or of such contrasting color as to seriously affect the appearance or eating quality of the product.

(d) *(SStd) classification.* Frozen cooked squash which fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 20 points and shall not be graded above substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1949 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen cooked squash, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than four points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1950 *Score sheet for frozen cooked squash.*

Number, size, and kind of container	
Container marks or identification	
Label	
Net weight (ounces)	

Factors		Score points	
Consistency	30	(A) (B) (SStd.)	26-30 [1] 21-25 [1] 0-20
Color	20	(A) (B) (SStd.)	17-20 [1] 14-16 [1] 0-13
Finish	20	(A) (B) (SStd.)	17-20 [1] 14-16 [1] 0-13
Absence of defects	30	(A) (B) (SStd.)	25-30 [1] 21-24 [1] 0-20
Total score	100		

Flavor and odor	
Grade	

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[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN SQUASH (SUMMER TYPE)[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.1961 *Product description.* "Frozen squash" is the fresh, sound, immature product from the squash (summer type) plant hereinafter called frozen squash, which has been properly prepared and properly blanched, and is then frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product.

§ 52.1962 *Styles of frozen squash.* (a) Sliced.

(b) Cut.

§ 52.1963 *Grades of frozen summer squash.* (a) "U. S. Grade A" or U. S. Fancy" is the quality of frozen squash that possesses similar varietal characteristics; that possesses a good flavor and odor; that possesses a good color; that is practically free from defects; that possesses a good character; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen squash that possesses similar varietal characteristics; that possesses a reasonably good flavor and odor; that possesses a reasonably good color; that is reasonably free from defects; that possesses a reasonably good character; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen squash that fails to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.1964 *Ascertaining the grade.* (a) The grade of frozen squash may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each scoring factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	Points
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The scores for the factors of color, absence of defects, and character are determined immediately after thawing so that the product is sufficiently free from ice crystals to permit proper handling as individual units, and a representative sample of the product is cooked to ascertain tenderness of the frozen squash before final evaluation of the score for character. Flavor and odor are also ascertained on the cooked product.

(d) "Good flavor and odor" means that the product after cooking has a good, characteristic normal flavor and ordor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Reasonably good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.1965 *Ascertaining the ratings for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.1966 *Color*—(a) (*A*) *classification.* Frozen squash that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the color of the squash is bright and typical of young and tender squash of similar varietal characteristics which has been properly processed.

(b) (*B*) *classification.* If the frozen squash possesses a reasonably good color, a score of 14 to 16 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the color of the squash is typical of reasonably young and tender squash of similar varietal characteristics which has been properly processed.

(c) (*SStd*) *classification.* Frozen squash that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1967 *Absence of defects.*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous vegetable material, sand, grit, or silt, poorly cut units, units damaged by mechanical injury, and units damaged by discoloration, scars, insect injury, or damaged by other means.

(1) "Unit" means a whole squash or a portion of a squash.

(2) "Damaged unit" means any unit damaged by discoloration, scars, insect injury, or by any other means except damaged by mechanical injury to the extent that the appearance or eating quality of the product is materially affected.

(3) "Seriously damaged" means damaged to the extent that the appearance or eating quality of the unit is seriously affected.

(4) "Harmless extraneous vegetable material" means leaves, detached stems or portions thereof, or other similar vegetable material.

(5) "Poorly cut" means units with attached stems or stem material, very ragged units, or pieces of less than ½ slice in sliced style squash.

(6) "Damaged by mechanical injury" means broken or mashed to such an extent that the appearance or eating quality of the unit is seriously affected.

(7) "Sand, grit, or silt" means any particle of earthy material.

(b) (*A*) *classification.* Frozen squash that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the product contains no grit, sand, or silt that affects the eating quality or appearance of the frozen squash; that for each 12 ounces of units there may be present not more than one piece of harmless extraneous vegetable material. The combined weight of all other defects and defective units must not exceed 8 percent of the weight of the units: *Provided,* That

(1) Not more than 4 percent, by weight, is of damaged units and of such 4 percent, not more than one-fourth thereof or 1 percent, by weight, of all the units consist of units that are seriously damaged; or

(2) Not more than 6 percent, by weight, is of poorly cut units, or of units damaged by mechanical injury, or any combination thereof of not more than 6 percent, by weight.

(c) (*B*) *classification.* If the frozen squash is reasonably free from defects, a score of 28 to 33 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the product may contain a trace of sand, grit, or silt that does not materially affect the eating quality or appearance of the frozen squash; that for each 12 ounces of units there may be present not more than two pieces of harmless extraneous vegetable material. The combined weight of all other defects and defective units must not exceed 12 percent of the weight of the units: *Provided,* That

(1) Not more than 8 percent, by weight, is of damaged units and of such 8 percent, not more than one-fourth thereof or 2 percent, by weight, of all the units consist of units that are seriously damaged.

(2) Not more than 10 percent, by weight, is of poorly cut units, or of units damaged by mechanical injury, or any combination thereof of not more than 10 percent, by weight.

(d) (*SStd*) *classification.* Frozen squash that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.1968 *Character*—(a) *General.* The factor of character refers to the fleshy texture, the tenderness, and the degree of development of the seeds.

(b) (*A*) *classification.* Frozen squash that possesses a good character may be given a score of 34 to 40 points. "Good character" means that the units are practically intact, are fleshy and tender, that the seeds are in the immature stage, and that not more than 5 percent, by weight of the units may be of reasonably good character.

(c) (*B*) *classification.* If the frozen squash possesses a reasonably good character, a score of 28 to 33 points may be given. Frozen squash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the units may show slight disintegration, may have lost to a considerable extent their fleshy texture, may be reasonably tender, and that the seeds may have passed the immature stage of maturity, but are not hard and that not more than 10 percent, by weight, of the units fails to meet the requirements for reasonably good character.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) *(SStd) classification.* Frozen squash that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.1969 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen squash, the grade for such lot will be determined by averaging the total score for all containers, if:

(1) Not more than one-sixth of the containers comprising the sample fails to meet all the requirements of the grade indicated by the average of such total scores, and with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.1970 *Score sheet for frozen squash (summer type).*

Number, size, and kind of container			----
Container marks or identification			----
Label			----
Net weight (ounces)			----
Style (sliced, cut)			----
Factors	Score points		
Color	20	(A) 17-20 (B) [1] 14-16 (SStd.) [1] 0-13	
Absence of defects	40	(A) 34-40 (B) [1] 28-33 (SStd.) [1] 0-27	
Character	40	(A) 34-40 (B) [1] 28-33 (SStd.) [1] 0-27	
Total score	100		
Flavor and odor			----
Grade			----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN STRAWBERRIES [1]

PRODUCT DESCRIPTION, STYLES, SIZES, AND GRADES

§ 52.1981 *Product description.* Frozen strawberries are prepared from the properly ripened fresh fruit of the strawberry plant (Fragaria virginiana); are stemmed, washed, and sorted; may be packed with or without packing media; and are frozen and stored at temperatures necessary for the preservation of the product.

§ 52.1982 *Styles of frozen strawberries.* (a) "Whole" or "whole strawberries."

(b) "Sliced" or "sliced strawberries."

§ 52.1983 *Sizes of whole strawberries.* Except with respect to "U. S. Grade A" or "U. S. Fancy" grade (not for manufacturing), the size of whole strawberries is not incorporated in the grades of the finished product since size, as such, is not a factor of quality for the purpose of these grades. When used in connection with the following sizes of whole strawberries, the term "diameter" means the greatest dimension measured at right angles to a straight line running from the stem to the apex:

(a) *Small size.* Whole strawberries that measure less than ⅝ inch in diameter.

(b) *Medium size.* Whole strawberries that measure ⅝ inch to 1 inch, inclusive, in diameter.

(c) *Large size.* Whole strawberries that measure more than 1 inch in diameter.

§ 52.1984 *Grades of frozen strawberries (not for manufacturing).* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen strawberries that possess similar varietal characteristics; possess a bright, practically uniform, typical color; are practically free from defects; possess a good character; possess a normal flavor and odor; and score not less than 85 points when scored in accordance with the scoring system outlined in this subpart. In addition to the foregoing requirements, whole strawberries of this grade may contain not more than 5 percent, by count, of whole strawberries that are small size, i. e., less than ⅝ inch in diameter.

(b) "U. S. Grade B" or "U. S. Choice" is the quality of frozen strawberries that possess similar varietal characteristics; possess a reasonably bright, reasonably uniform, typical color; are reasonably free from defects; possess a reasonably good character; possess a normal flavor and odor; and score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of frozen strawberries that fail to meet the requirements of "U. S. Grade B" or "U. S. Choice."

§ 52.1985 *Grades of frozen strawberries for manufacturing.* (a) "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" is the quality of frozen strawberries that possess similar varietal characteristics; that are of any size; that possess a bright, practically uniform, typical color; that are practically free from defects; that possess a good character for the purposes of manufacturing; and that possess a normal flavor and odor.

(b) "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" is the quality of frozen strawberries that possess similar varietal characteristics; that are of any size; that possess a reasonably bright, reasonably uniform, typical color; that are reasonably free from defects; that possess a reasonably good character for the purposes of manufacturing; and that possess a normal flavor and odor.

(c) "U. S. Grade D for Manufacturing" or "Substandard for Manufacturing" is the quality of frozen strawberries that fail to meet the requirements of "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing."

FACTORS OF QUALITY

§ 52.1986 *Ascertaining the score and grade for frozen strawberries (not for manufacturing).* (a) The grade of frozen strawberries is determined immediately after thawing to the extent that the units may be separated easily. The score and grade of frozen strawberries may be ascertained by considering, in addition to the requirements of the respective grade, the following factors: Color, absence of defects, and character.

(b) The relative importance of each factor has been expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	40
Absence of defects	40
Character	20
Total score	100

(c) "Normal flavor and odor" means that the strawberries are free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1987 *Ascertaining the score of each factor for frozen strawberries (not for manufacturing).* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "34 to 40 points" means 34, 35, 36, 37, 38, 39, or 40 points).

§ 52.1988 *Color*—(a) *General.* "Well colored" means that not less than four-fifths, in the aggregate, of the surface of the whole strawberry is the red or pink color characteristic of strawberries of similar varieties, and that the surface (including cut surfaces) of the sliced strawberry is the typical color, characteristic of well-ripened strawberries of similar varieties.

(b) *(A) classification.* Frozen strawberries that possess a bright, practically uniform, typical color may be given a score of 34 to 40 points. "Bright, practically uniform, typical color" means that the whole and sliced strawberries possess a bright and good characteristic red or pink color, reasonably free from a slightly dull, slightly grey, or slightly reddish-brown cast; and that there may be present not more than 5 percent, by count, of the whole strawberries that are not well colored and not more than 5 percent, by weight, of the sliced strawberries that are not well colored.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) (*B*) *classification.* If the frozen strawberries possess a reasonably bright, reasonably uniform, typical color, a score of 28 to 33 points may be given. Frozen strawberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably bright, reasonably uniform, typical color" means that the whole and sliced strawberries possess a reasonably good characteristic red or pink color that may possess a slightly dull, slightly grey, or slightly reddish-brown cast; and that there may be present not more than 10 percent, by count, of the whole strawberries that are not well colored and not more than 10 percent, by weight, of the sliced strawberries that are not well colored.

(d) (*SStd*) *classification.* Frozen strawberries that are definitely dull or off-color or that fail to meet the requirements of paragraph (c) of this section, may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) The evaluation of the score points for the factor of color may be determined from Table No. I of this subpart which indicates the score range in the respective grades and which denotes the typical color in frozen strawberries and the maximum allowance for frozen strawberries that are not well colored for the score indicated.

§ 52.1989 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, caps and portions thereof, sepal-like bracts and portions thereof, stems, short stems, undeveloped strawberries, and damaged strawberries.

(1) "Harmless extraneous material" means vegetable substances such as weeds, grass, and leaves and any portions thereof that are harmless.

(2) A "cap" means a loose or attached full cap or a portion of a cap to which at least one sepal-like bract or portion thereof is attached. A "short stem" that is attached to a cap is considered a part of the cap. A "stem" that is attached to the cap is considered a separate defect.

(3) A "stem" means a stem, either loose or attached, that is longer than ⅛ inch.

(4) A "short stem" means a stem that is ⅛ inch or less in length and which may include the center portion of a cap to which no sepal-like bract or portion thereof is attached.

(5) An "undeveloped strawberry" means a strawberry or a portion of a strawberry that possesses a hard, seedy, or deformed end or that possesses deformed areas which materially affect either the appearance or the edibility of the product.

(6) A "damaged strawberry" means a strawberry or a portion of a strawberry that is damaged by bruises or by pathological, insect, or other injury or is damaged by other means which materially affect either the appearance or the edibility of the product. Minute, insignificant injuries are not considered as damage.

(7) "Area" means the aggregate surface covered by the material stated when such material or portions thereof are placed in a contiguous position with no intervening spaces.

(b) (*A*) *classification.* Frozen strawberries that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" has the following meanings with respect to the following styles of frozen strawberries:

(1) *Whole.* There may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 16 short stems; and there may be present not more than a total of 5 percent, by weight, of whole strawberries that are undeveloped strawberries and of whole strawberries that are damaged strawberries.

TABLE NO. I—ALLOWANCES FOR COLOR

Grade	Score points	Whole and sliced, typical color	Whole, not well colored	Sliced, not well colored
			Maximum	
			By count (percent)	*By weight (percent)*
U. S. Grade A or U. S. Fancy	40	Bright and good characteristic red or pink color; reasonably free from a slightly dull, slightly grey, or slightly reddish-brown cast.	None	----------
	39		½	½
	38		1	1
	37		2	2
	36		3	3
	35		4	4
	34		5	5
U. S. Grade B or U. S. Choice	33	Reasonably good characteristic red or pink color; may possess a slightly dull, slightly grey, or slightly reddish-brown cast.	5½	5½
	32		6	6
	31		7	7
	30		8	8
	29		9	9
	28		10	10
U. S. Grade D or Substandard	27 or less	More than the allowances permitted for 28 points		

(2) *Sliced.* There may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 16 short stems; and there may be present not more than a total of 2½ percent, by weight, of sliced strawberries that are undeveloped units of strawberries and of sliced strawberries that are damaged units of strawberries.

(c) (*B*) *classification.* If the frozen strawberries are reasonably free from defects, a score of 28 to 33 points may be given. Frozen strawberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" has the following meanings with respect to the following styles of frozen strawberries:

(1) *Whole.* There may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 32 short stems; and there may be present not more than a total of 10 percent, by weight, of whole strawberries that are undeveloped strawberries and of whole strawberries that are damaged strawberries.

(2) *Sliced.* There may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 32 short stems; and there may be present not more than a total of 5 percent, by weight, of sliced strawberries that are undeveloped units of strawberries and of sliced strawberries that are damaged units of strawberries.

(d) (*SStd*) *classification.* Frozen strawberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) *Evaluation of score points.* The evaluation of the score points for the factor of absence of defects may be determined from Table No. II of this subpart which indicates the maximum allowances for each class of defects for the score indicated.

§ 52.1990 *Character*—(a) *General.* The factor of character refers to the texture and degree of disintegration or the degree of wholeness as evidenced by crushed or partial strawberries and mushy strawberries.

(1) A "crushed or partial strawberry" is a strawberry that has been excessively trimmed or has become disintegrated so that the portion remaining intact is less than one-half of the apparent whole strawberry.

(2) "Mushy strawberries" are strawberries that are so soft that they are a pulpy mass.

(b) (*A*) *classification.* Frozen strawberries that possess a good character may be given a score of 17 to 20 points. "Good character" means that the strawberries are fleshy, reasonably firm, and practically intact and that:

(1) Not more than 10 percent, by weight, of whole strawberries may be crushed or partial strawberries and mushy strawberries; and

(2) Not more than 20 percent, by weight, of sliced strawberries may be mushy strawberries.

TABLE NO. II—ALLOWANCES FOR DEFECTS

Grade	Score points	Whole and sliced					Whole, undeveloped and damaged strawberries	Sliced, undeveloped and damaged units of strawberries
		Harmless extraneous material (leaves, etc.), caps, sepal-like bracts and portions thereof	Harmless extraneous material (weeds, grass) and stems (including stems over ½ inch)			Short stems		
		Maximum						
		Per 16 ounces of net weight					By weight	By weight
			Stems		Harmless material			
			Total	Over ½"				
							Percent	*Percent*
U. S. Grade A or U. S. Fancy.	40	None	None	None or	None	3	None	None
	39	⅛ square inch	1	None or	None	6	½	¼
	38	⅛ square inch	1	None or	None	8	1	½
	37	⅛ square inch	1	None or	1 piece	10	2	1
	36	¼ square inch	2	1 or	1 piece	12	3	1½
	35	¼ square inch	2	1 or	1 piece	14	4	2
	34	¼ square inch	2	1 or	1 piece	16	5	2½
U. S. Grade B or U. S. Choice.	33	⅜ square inch	3	1 or	1 piece	20	5½	2¾
	32	⅜ square inch	3	1 or	1 piece	24	6	3
	31	⅜ square inch	3	1 or	1 piece	26	7	3½
	30	½ square inch	4	1 or	1 piece	28	8	4
	29	½ square inch	4	1 or	1 piece	30	9	4½
	28	½ square inch	4	1 or	1 piece	32	10	5
U. S. Grade D or Substandard.	27 or less	More than the allowances permitted for 28 points						

(c) (*B*) *classification.* If the frozen strawberries have a reasonably good character, a score of 14 to 16 points may be given. Frozen strawberries that fall into this classification shall not be graded above U. S. Grade B or U. S. Choice, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the strawberries are reasonably fleshy, fairly firm, and reasonably intact and that:

(1) Not more than 20 percent, by weight, of whole strawberries may be crushed or partial strawberries and mushy strawberries; and

(2) Not more than 30 percent, by weight, of sliced strawberries may be mushy strawberries.

(d) (*SStd*) *classification.* Frozen strawberries that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

(e) *Evaluation of score points.* The evaluation of the score points for the factor of character may be determined from Table No. III of this subpart which indicates the texture of frozen strawberries and the maximum allowances for frozen strawberries that are crushed or partial strawberries and mushy strawberries for the score indicated.

§ 52.1991 *Determination of the grades of frozen strawberries for manufacturing.* (a) The grade of frozen strawberries for manufacturing is determined immediately after thawing a sample to the extent that the units may be separated easily. The grade of frozen strawberries for manufacturing is ascertained by considering the following factors, and for which no scoring system is provided: Color, absence of defects, and character.

(b) "Normal flavor and odor" means that the strawberries are free from objectionable flavors, off flavors, and objectionable odors of any kind.

§ 52.1992 *Ascertaining the rating of each factor for frozen strawberries for manufacturing.* (See Table No. IV of this subpart which is a brief summary of requirements for grades of frozen strawberries for manufacturing).

§ 52.1993 *Color*—(a) *General.* "Well colored" means that not less than four-fifths, in the aggregate, of the surface of the whole strawberry is the red or pink color characteristic of strawberries of similar varieties, and that the surface (including cut surfaces) of the sliced strawberry is the typical color, characteristic of well-ripened strawberries of similar varieties.

(b) (*A*) *classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen strawberries shall possess a bright, practically uniform, typical color. "Bright, practically uniform, typical color" means that the whole and sliced strawberries possess a bright and good characteristic red or pink color, reasonably free from a slightly dull, slightly grey, or slightly reddish-brown cast; and that there may be present not more than 5 percent, by count, of the whole strawberries that are not well colored and not more than 5 percent, by weight, of the sliced strawberries that are not well colored.

(c) (*B*) *classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen strawberries shall possess a reasonably bright, reasonably uniform, typical color. "Reasonably bright, reasonably uniform, typical color" means that the whole and sliced strawberries possess a reasonably good characteristic red or pink color that may possess a slightly dull, slightly grey, or slightly reddish-brown cast; and that there may be present not more than 10 percent, by count, of the whole strawberries that are not well colored and not more than 10 percent, by weight, of the sliced strawberries that are not well colored.

(d) (*SStd*) *classification.* Frozen strawberries for manufacturing that fail to meet the requirements of paragraph (c) of this section for the factor of color shall be considered U. S. Grade D for Manufacturing or Substandard for Manufacturing.

TABLE NO. III—CHARACTER

Grade	Score points	Texture	Whole, crushed, partial, and mushy	Sliced, mushy
			Maximum (by weight)	
			Percent	*Percent*
U. S. Grade A or U. S. Fancy.	20	Fleshy, reasonably firm, practically intact	None	5
	19		3	10
	18		6	15
	17		10	20
U. S. Grade B or U. S. Choice.	16	Reasonably fleshy, fairly firm, reasonably intact.	13	23
	15		16	26
	14		20	30
U. S. Grade D or Substandard.	13 or less	More than the allowances permitted for 14 score points.		

§ 52.1994 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous material, caps and portions thereof, sepal-like bracts and portions thereof, stems, short stems, undeveloped strawberries, and damaged strawberries.

(1) "Harmless extraneous material" means vegetable substances such as weeds, grass, and leaves and any portions thereof that are harmless.

(2) A "cap" means a loose or attached full cap or a portion of a cap to which at least one sepal-like bract or portion thereof is attached. A "short stem" that is attached to a cap is considered a part of the cap. A "stem" that is attached to the cap is considered a separate defect.

(3) A "stem" means a stem, either loose or attached, that is longer than ⅛ inch.

(4) A "short stem" means a stem that is ⅛ inch or less in length and which may include the center portion of a cap to which no sepal-like bract or portion thereof is attached.

(5) An "undeveloped strawberry" means a strawberry or a portion of a strawberry that possesses a hard, seedy, or deformed end or that possesses deformed areas which materially affect either the appearance or the edibility of the product.

(6) A "damaged strawberry" means a strawberry or a portion of a strawberry that is damaged by bruises or by pathological, insect, or other injury or is damaged by other means which materially affect either the appearance or the edibility of the product. Minute, insignificant injuries are not considered as damage.

(7) "Area" means the aggregate surface covered by the material stated when such material or portions thereof are placed in a contiguous position with no intervening spaces.

(b) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen strawberries shall be practically free from defects. "Practically free from defects" has the following meaning with respect to the following styles of frozen strawberries:

(1) *Whole.* There may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 16 short stems; and there may be present not more than a total of 5 percent, by weight, of whole strawberries that are undeveloped strawberries and of whole strawberries that are damaged strawberries.

(2) *Sliced.* There may be present for each 16 ounces of net weight an area of not more than ¼ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 2 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 16 short stems; and there may be present not more than a total of 2½ percent, by weight, of sliced strawberries that are undeveloped units of strawberries and of sliced strawberries that are damaged units of strawberries.

(c) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen strawberries shall be reasonably free from defects. "Reasonably free from defects" has the following meaning with respect to the following styles of frozen strawberries:

(1) *Whole.* There may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 32 short stems; and there may be present not more than a total of 10 percent, by weight, of whole strawberries that are undeveloped strawberries and of whole strawberries that are damaged strawberries.

(2) *Sliced.* There may be present for each 16 ounces of net weight an area of not more than ½ square inch comprising harmless extraneous material (such as leaves and portions thereof), caps and portions thereof, and loose sepal-like bracts and portions thereof; not more than 4 stems, including not more than 1 stem which may exceed ½ inch in length, or 1 piece of harmless extraneous material that is not measurable by area (such as weeds and blades of grass); and not more than 32 short stems; and there may be present not more than a total of 5 percent, by weight, of sliced strawberries that are undeveloped units of strawberries and of sliced strawberries that are damaged units of strawberries.

(d) *(SStd) classification.* Frozen strawberries for manufacturing that fail to meet the requirements of paragraph (c) of this section for the factor of absence of defects shall be considered U. S. Grade D for Manufacturing or Substandard for Manufacturing.

§ 52.1995 *Character*—(a) *General.* The factor of character refers to the texture and degree of disintegration or the degree of wholeness as evidenced by crushed or partial strawberries and mushy strawberries.

(1) A "crushed or partial strawberry" is a strawberry that has been excessively trimmed or has become disintegrated so that the portion remaining intact is less than one-half of the apparent whole strawberry.

(2) "Mushy strawberries" are strawberries that are so soft that they are a pulpy mass.

(b) *(A) classification.* "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" requires that the frozen strawberries shall possess a good character for the purposes of manufacturing. "Good character for the purposes of manufacturing" means that the strawberries are reasonably fleshy, fairly firm, and reasonably intact and that:

(1) Not more than 15 percent, by weight, of whole strawberries may be crushed or partial strawberries and mushy strawberries; and

(2) Not more than 25 percent, by weight, of sliced strawberries may be mushy strawberries.

(c) *(B) classification.* "U. S. Grade B for Manufacturing" or "U. S. Choice for Manufacturing" requires that the frozen strawberries shall possess a reasonably good character for the purposes of manufacturing. "Reasonably good character for the purposes of manufacturing" means that the strawberries are fairly fleshy and fairly intact and that:

(1) Not more than 25 percent, by weight, of whole strawberries may be crushed or partial strawberries and mushy strawberries; and

(2) Not more than 40 percent, by weight, of sliced strawberries may be mushy strawberries.

TABLE NO. IV—BRIEF SUMMARY OF REQUIREMENTS FOR GRADES OF FROZEN STRAWBERRIES FOR MANUFACTURING

Grades	Color		
	Whole and sliced, typical color	Whole, not well colored, maximum (by count)	Sliced, not well colored, maximum (by weight)
		Percent	*Percent*
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	Bright and good characteristic red or pink color, reasonably free from a slightly dull, slightly grey, or slightly reddish-brown cast.	5	5
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	Reasonably good characteristic red or pink color that may possess a slightly dull, slightly grey, or slightly reddish-brown cast.	10	10

TABLE NO. IV—BRIEF SUMMARY OF REQUIREMENTS FOR GRADES OF FROZEN STRAWBERRIES FOR MANUFACTURING—Continued

Grades	Absence of defects				
	Whole and sliced			Whole, undeveloped and damaged strawberries	Sliced, undeveloped and damaged units of strawberries
	Harmless extraneous material (leaves, etc.), caps, sepal-like bracts and portions thereof.	Harmless extraneous material (weeds, grass) and stems (including stems over ½ inch)	Short stems		
	Maximum				
	Per 16 ounces of net weight			By weight	By weight
				Percent	*Percent*
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	¼ square inch	2 stems, including 1 stem that may exceed ½ inch, or 1 piece harmless material.	16	5	2½
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	½ square inch	4 stems, including 1 stem that may exceed ½ inch, or 1 piece harmless material.	32	10	5

Grades	Character		
		Whole, crushed, partial, and mushy, maximum (by weight)	Slices, mushy, maximum (by weight)
		Percent	*Percent*
U. S. Grade A for manufacturing or U. S. Fancy for manufacturing.	Good character for purposes of manufacturing: reasonably fleshy, fairly firm, reasonably intact.	15	25
U. S. Grade B for manufacturing or U. S. Choice for manufacturing.	Reasonably good character for purposes of manufacturing: fairly fleshy and fairly intact.	25	40

(d) (*SStd*) *classification*. Frozen strawberries for manufacturing that fail to meet the requirements of paragraph (c) of this section for the factor of character shall be considered U. S. Grade D for Manufacturing or Substandard for Manufacturing.

LOT CERTIFICATION TOLERANCES

§ 52.1996 *Tolerance for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen strawberries, the grade for such lot will be determined by averaging the total scores of all containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, must be within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE AND WORK SHEETS

§ 52.1997 *Score sheet for frozen strawberries (not for manufacturing).*

Size and kind of container			
Container mark or identification			
Label (style of pack: Ratio of fruit to sugar, etc., if shown)			
Net weight			
Style			
Size[1]			
Factors	Score points		
Color	40	(A) 34-40 (B) [2]28-33 (D) [2]0-27	
Absence of defects	40	(A) 34-40 (B) [2]28-33 (D) [2]0-27	
Character	20	(A) 17-20 (B) [2]14-16 (D) [2]0-13	
Total score	100		
Normal flavor and odor			
Grade			

[1] See size limitation for U. S. Grade A or U. S. Fancy only.

[2] Indicates limiting rule.

§ 52.1998 *Work sheet for frozen strawberries for manufacturing.*

Size and kind of container		
Container mark or identification		
Label (Style of Pack: Ratio of fruit to sugar, etc., if shown)		
Net weight		
Style		
Size		
Color	(A) mfg.: Bright, practically uniform, typical color (B) mfg.: Reasonably bright, reasonably uniform, typical color (D) mfg.: Fails to meet requirements for (B) manufacturing	
Defects	(A) mfg.: Practically free from defects (B) mfg.: Reasonably free from defects (D) mfg.: Fails to meet requirements for (B) manufacturing	
Character	(A) mfg.: Good character for the purposes of manufacturing (B) mfg.: Reasonably good character for the purposes of manufacturing (D) mfg.: Fails to meet requirements for (B) manufacturing	
Normal flavor and odor		
U. S. Grade for manufacturing		

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN SUCCOTASH[1]

PRODUCT DESCRIPTION, INGREDIENTS, AND GRADES

§ 52.2011 *Product description.* Frozen succotash means the frozen product prepared from fresh, clean, sound, succulent kernels of sweet corn and the immature seed of varieties of lima beans, vegetable soybeans, or fresh immature pods of green beans or wax beans. The ingredients are mixed and properly drained and then frozen in accordance with good commercial practice and maintained at temperatures necessary for the preservation of the product. When soybeans or green beans or wax beans are used, the product is designated as "frozen soybean succotash" or "frozen green bean (or wax bean) succotash," as the case may be.

§ 52.2012 *Kind, type, and style of ingredients.* (a) Corn, sweet, whole kernel:

(1) White.
(2) Golden (yellow).
(b) Lima beans:
(1) Thin-seeded.
(2) Thick-seeded.
(3) Thick-seeded baby potato.
(c) Soybeans, vegetable.
(d) Green beans or wax beans, Cut or Short Cut style.

§ 52.2013 *Proportion of ingredients.* It is recommended that frozen succotash consist of a mixture of the vegetable ingredients in the following proportions:

	Proportions by weight (percent)	
	Not more than—	Not less than—
Corn, white or golden	75	50
Lima beans, fresh	50	25
Soybeans, vegetable	50	25
Green or wax beans	50	25

§ 52.2014 *Grades of frozen succotash.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen succotash in which each vegetable possesses similar varietal characteristics; possesses a good flavor and odor; is tender; possesses a good color; is practically free from defects; and that for those factors which are scored in accordance with the scoring system outlined in this subpart the total score is not less than 90 points: *Provided,* That the frozen succotash may be reasonably tender and possess a reasonably good color if the total score is not less than 90 points.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen succotash in which each vegetable possesses similar varietal characteristics;

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

possesses a good flavor and odor; is reasonably tender; possesses a reasonably good color; is reasonably free from defects; and that scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of frozen succotash in which each vegetable possesses similar varietal characteristics; possesses a fairly good flavor and odor; is fairly tender; possesses a fairly good color; is fairly free from defects; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of frozen succotash that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FACTORS OF QUALITY

§ 52.2015 *Ascertaining the grade.* (a) The grade of frozen succotash is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and tenderness.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given each such factor is:

Factors:	Points
Color	30
Absence of defects	30
Tenderness	40
Total score	100

(c) The scores for the factors of color, absence of defects, and tenderness (with respect to each individual vegetable prior to cooking) are determined immediately after thawing to the extent that the product is substantially free from ice crystals and can be handled as individual units. A representative sample is cooked to determine the tenderness of the vegetable ingredients collectively and to ascertain the flavor and odor of the product.

(d) "Good flavor and odor" means that the product, after cooking, has a good, characteristic, normal flavor and odor and is free from objectionable flavor and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.2016 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "27 to 30 points" means 27, 28, 29, or 30 points).

§ 52.2017 *Color*—(a) *General.* The factor of color refers to the overall appearance of the product and to the general brightness of the vegetables.

(1) "Green" with respect to lima beans means that the color of not less than 50 percent of the surface area of the individual lima bean (with skins on) possesses as much or more green color than plate 18, J–3, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(2) "White" with respect to lima beans means that more than 50 percent of the surface area of the individual lima bean (with skins on) possesses less green color than Plate 18, E–1, as illustrated in Maerz and Paul's Dictionary of Color.[2]

(b) (*A*) *Classification.* Frozen succotash that possesses a good color may be given a score of 27 to 30 points. "Good color" means that the vegetables are bright and possess a color typical of young and tender vegetables that have been properly prepared and properly processed and that the frozen whole kernel (or whole grain) corn is practically free from "off-colored" kernels. In addition, the lima beans shall meet the following color requirements:

(1) Not less than 93 percent, by count, of the lima beans are green and not more than 7 percent, by count, may be lighter in color: *Provided*, That not more than 1 percent, by count, of all the lima beans are white, or

(2) Not less than 97 percent, by count, of the lima beans are green and not more than 3 percent, by count, may be lighter in color or white beans.

(c) (*B*) *classification.* If the frozen succotash possesses a reasonably good color, a score of 24 to 26 points may be given. "Reasonably good color" means that the vegetables are reasonably bright and possess a color typical of reasonably young and reasonably tender vegetables that have been properly prepared and properly processed and that the frozen whole kernel (or whole grain) corn is reasonably free from "off-colored" kernels. In addition, the lima beans shall meet the following color requirements:

(1) Not less than 65 percent, by count, of the lima beans are green and not more than 35 percent, by count, may be lighter in color or white beans.

(d) (*C*) *classification.* Frozen succotash that possesses a fairly good color may be given a score of 21 to 23 points. Frozen succotash that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the vegetables possess a color that may be dull but not to the extent that the appearance is materially affected and the whole kernel) or whole grain) corn in the frozen succotash is fairly free from "off-variety" kernels. In addition, the lima beans shall meet the following color requirements:

(1) Less than 65 percent, by count, of the lima beans are green and all of the lima beans may be white.

(e) (*SStd*) *classification.* If the frozen succotash fails to meet the requirements of paragraph (d) of this section, a score of 0 to 20 points may be given. Frozen succotash that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2018 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from extraneous vegetable matter, damaged units, seriously damaged units, and from any other defects.

(1) "Extraneous vegetable matter" means pieces of pod, leaves, stems, pieces of cob, husk, and other similar vegetable matter, other than silk, that is normally removed in proper preparation of the vegetables for processing.

(2) "Damaged" means damaged by discoloration, pathological injury, insect injury, or damaged by other means to the extent that the appearance or eating quality is materially affected.

(3) "Seriously damaged" means damaged by discoloration, pathological injury, insect injury, or damaged by other means to the extent that the appearance or eating quality is seriously affected and includes but is not limited to "shriveled" lima beans that are materially wrinkled and are not of normal plumpness and "sprouted" lima beans that show an external shoot protruding beyond the cotyledon or skin.

(4) "Other defects" means any defect not specifically mentioned that affects the appearance or eating quality of the product and includes but is not limited to the following:

(i) *Lima beans.* Broken beans, loose cotyledons, loose skins, and any portion thereof.

(ii) *Corn.* Crushed kernels, ragged kernels, loose skins, and dark and objectionable silk more than ½ inch in length.

(iii) *Soybeans.* Broken soybeans, loose cotyledons, loose skins, or any portion thereof.

(iv) *Green (or wax) beans.* Ragged cut units, split units, and small pieces of pod.

(b) (*A*) *classification.* Frozen succotash that is practically free from defects may be given a score of 27 to 30 points. "Practically free from defects" means that the aforesaid defects, individually or collectively, do not more than slightly affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen succotash that is practically free from defects. For each 10 ounces of frozen succotash there may be present: 1 piece, or pieces, of extraneous vegetable matter, such as pieces of pod, husk, leaves, and stems having an aggregate area of not more than 3/16 square inch (½ inch x ⅜ inch) on one surface of the piece, or pieces; and ¼ cubic centimeter of pieces of cob.

(c) (*B*) *classification.* If the frozen succotash is reasonably free from defects, a score of 24 to 26 points may be given. Frozen succotash that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that the aforesaid defects, individually or collectively, do not materially affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen succotash that is reasonably free from defects. For each 10 ounces of frozen succotash there may be present: 1 piece, or pieces, of extraneous vegetable matter, such as pieces of pod, husk, leaves, and stems having an aggregate area of not more than ⅜ square inch (½ inch x ¾ inch) on one surface of the piece, or pieces; and ½ cubic centimeter of pieces of cob.

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[2] First Edition.

(d) *(C) classification.* Frozen succotash that is fairly free from defects may be given a score of 21 to 23 points. Frozen succotash that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects means that the aforesaid defects, individually or collectively, do not seriously affect the appearance or eating quality of the product. The following allowances provide a guide for scoring frozen succotash that is fairly free from defects. For each 10 ounces of frozen succotash there may be present: 1 piece, or pieces, of extraneous vegetable matter, such as pieces of pod, husk, leaves, and stems having an aggregate area of not more than ¾ square inch (½ inch x 1½ inch) on one surface of the piece, or pieces; and 1 cubic centimeter of pieces of cob.

(e) *(SStd) classification.* Frozen succotash that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 20 points. Frozen succotash that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2019 *Tenderness*—(a) *(A) classification.* Frozen succotash consisting of vegetables that are tender may be given a score of 36 to 40 points. "Tender" means that the vegetables in the frozen succotash, after cooking, are tender, and, prior to cooking, meet the following additional requirements:

(1) *Corn, whole kernel (or whole grain).* The kernels are in the milk or early cream stage of maturity.

(2) *Lima beans.* The lima beans are young and tender.

(3) *Soybeans.* The soybeans are young and tender.

(4) *Green beans (or wax beans).* The green beans (or wax beans) are full-fleshed for the variety, and the seeds are in the early stage of maturity.

(b) *(B) classification.* If the frozen succotash consists of vegetables that are reasonably tender, a score of 32 to 35 points may be given. "Reasonably tender" means that the vegetables in the frozen succotash, after cooking, are reasonably tender, and, prior to cooking, meet the following additional requirements:

(1) *Corn, whole kernel.* The kernels are in the cream stage of maturity.

(2) *Lima beans.* The lima beans are reasonably young and reasonably tender.

(3) *Soybeans.* The soybeans are reasonably young and reasonably tender.

(4) *Green beans (or wax beans).* The green beans (or wax beans) may have lost their fleshy texture to some extent and the seeds may have passed the early stage of maturity and have not reached the late stage of maturity.

(c) *(C) classification.* Frozen succotash consisting of vegetables that are fairly tender may be given a score of 28 to 31 points. Frozen succotash that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly tender" means that the vegetables in the frozen succotash, after cooking, are fairly tender, and, prior to cooking, meet the following additional requirements:

(1) *Corn, whole kernel.* The kernels are in the early dough or dough stage of maturity.

(2) *Lima beans.* The lima beans may be nearly mature.

(3) *Soybeans.* The soybeans may be nearly mature.

(4) *Green beans (or wax beans).* The green beans (or wax beans) may have lost to a considerable extent their fleshy structure and the seeds may be well developed and nearly mature.

(d) *(SStd) classification.* Frozen succotash in which the vegetables fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points. Frozen succotash that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2020 *Method for determining proportion of ingredients.* (a) The proportion of ingredients is determined on the thawed succotash in the following manner:

(1) Separate each of the vegetables from all of the containers in the sample.

(2) Composite each of the vegetables thus separated and weigh.

(3) Add the weights of the composited vegetables to obtain the total weight of vegetables in the sample.

(4) Divide the total weight of vegetables by the weight of each of the composited vegetables in the sample and multiply by 100. The result shall be considered to be the percent of the total weight of vegetables in the sample or the proportion of the vegetable ingredient.

LOT CERTIFICATION TOLERANCES

§ 52.2021 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represents a specific lot of frozen succotash the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2022 *Score sheet for frozen succotash.*

Size and kind of container	
Container mark or Identification — Packages	
Container mark or Identification — Cases	
Label (list of ingredients, etc)	
Net weight (ounces)	

Kind, type, and style of ingredients	Aggregate weight each ingredient	Proportion of ingredients
Corn—white kernel (white or golden)	----oz.	----%
Lima beans (type ----)	----oz.	----%
Soybeans	----oz.	----%
Green (or wax) beans, cut -- to ---- inches	----oz.	----%
Total weight	----oz.	100%
( ) Meets proportions; ( ) Fails proportions		

Factors	Score points		
Color	30	(A)	27-30
		(B)	24-26
		(C)	[1] 21-23
		(SStd.)	[1] 0-20
Absence of defects	30	(A)	27-30
		(B)	[1] 24-26
		(C)	[1] 21-23
		(SStd.)	[1] 0-20
Tenderness	40	(A)	36-40
		(B)	32-35
		(C)	[1] 28-31
		(SStd.)	[1] 0-27
Total score	100		

Flavor and odor after cooking:
( ) Good; ( ) fairly good; ( ) off.
Grade

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED SWEETPOTATOES [1]

IDENTITY, COLORS, STYLES, TYPES, AND GRADES

§ 52.2041 *Identity.* Canned sweetpotatoes means canned sweetpotatoes as defined in the definitions and standards of identity for canned vegetables (21 CFR 52.990), issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.2042 *Colors of canned sweetpotatoes.* (a) Yellow.

(b) Golden.

§ 52.2043 *Styles of canned sweetpotatoes.* (a) "Whole" or "whole sweetpotatoes" means canned sweetpotatoes that retain the approximate original conformation of the prepared sweetpotatoes.

(b) "Pieces" or "pieces of sweetpotatoes" means canned sweetpotatoes that consist of cut units (including, but not being limited to, sweetpotatoes that are halved longitudinally) or broken units.

(c) "Mashed" or "mashed sweetpotatoes" means canned sweetpotatoes that are wholly comminuted or crushed.

(d) Any combination of two or more of the following styles constitutes a style: Whole, pieces, or mashed.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.2044 *Types of packs of canned sweetpotatoes.* In addition to styles, canned sweetpotatoes are usually processed as any one of the following types of packs:

(a) In a liquid packing medium.

(b) "Vacuum-pack (without packing media)."

(c) "Solid-pack" (or "dry-pack").

§ 52.2045 *Grades of canned sweetpotatoes.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned sweetpotatoes that possess a good color; that are practically uniform in shape and size or possess good consistency, as applicable; that are practically free from defects; that possess a good character; that possess a normal flavor and odor; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned sweetpotatoes that possess a fairly good color; that are fairly free from defects; that possess a fairly good character; that possess a normal flavor and odor; and that are of such quality with respect to shape and size or consistency as to score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned sweetpotatoes that fail to meet the requirements of "U. S. Grade C" or "U. S. Standard."

LIQUID MEDIA, FILL OF CONTAINER, AND DRAINED WEIGHTS

§ 52.2046 *Recommended designations of liquid media and Brix measurements.* "Cut-out" requirements for liquid media are not incorporated in the grades of the finished product since sirup or any other liquid medium, as such, is not a factor of quality for the purposes of these grades. It is recommended that sweetpotatoes packed in sirup have the following indicated "cut-out" Brix measurement for the respective sirup designation, as applicable, and which designations are included in, but are not limited to, the following for canned sweetpotatoes in a liquid packing medium:

Designation	*Brix measurement*
Extra heavy sirup	30° or more.
Heavy sirup	25° or more, but less than 30°.
Light sirup	18° or more, but less than 25°.
In water	packed in water.

§ 52.2047 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with sweetpotatoes and that the product and packing medium, if any, occupy not less than 90 percent of the volume of the container.

§ 52.2048 *Recommended minimum drained weight.* (a) The minimum drained weight recommendations in Table I of this section are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades.

(b) The drained weight recommendations in Table I of this section are not applicable to canned sweetpotatoes packed as "vacuum-pack (without packing media)" or as "solid-pack" (or "dry-pack").

(c) The drained weight of canned sweetpotatoes is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch±3%, square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and the sweetpotatoes less the weight of the dry sieve. A sieve 8 inches in diameter is used for the equivalent of No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of the No. 3 size can.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS OF SWEETPOTATOES IN A LIQUID PACKING MEDIUM

Container size or designation:	*Drained weight ounces*
No. 2	14
No. 2½	19
No. 3 vacuum or squat (404 x 307)	15
No. 10	72

FACTORS OF QUALITY

§ 52.2049 *Ascertaining the grade.* (a) The grade of canned sweetpotatoes may be ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, shape and size or consistency, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Shape and size or consistency	20
Absence of defects	40
Character	20
Total score	100

(c) "Normal flavor and odor" means that the product is free from objectionable odors and objectionable flavors of any kind.

§ 52.2050 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.2051 *Color*—(a) *(A) classification.* Canned sweetpotatoes that possess a good color may be given a score of 17 to 20 points. "Good color" means a reasonably bright characteristic color (either yellow or golden) and that there may be reasonable variations of such characteristic color in the units, in each unit, or in the mass.

(b) *(C) classification.* If the canned sweetpotatoes possess a fairly good color, a score of 14 to 16 points may be given. Canned sweetpotatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the color may be variable in the units, in each unit, or in the mass and that the color may be slightly dull but is not offcolor.

(c) *(SStd) classification.* Canned sweetpotatoes that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2052 *Shape and size or consistency*—(a) *(A) classification.* Whole and pieces (whether packed singly or in combination) packed in a liquid packing medium or as "vacuumpack (without packing media)" that are practically uniform in shape and size may be given a score of 17 to 20 points; and canned sweetpotatoes packed as "solid-pack" (or "dry-pack") that possess a good consistency may be given a score of 17 to 20 points. "Practically uniform in shape and size" and "good consistency" have the following meanings with respect to the following styles and types of packs of canned sweetpotatoes:

(1) *Whole and pieces (whether packed singly or in combination) in a liquid packing medium or "vacuum-pack (without packing media)."* "Practically uniform in shape and size" means that the units of a single style may vary moderately in shape and that the weight of the largest unit, irrespective of style, is not more than three times the weight of the second smallest unit, irrespective of style.

(2) *Whole, pieces, and mashed (whether packed singly or in combination) packed as "solid-pack" (or "dry-pack").* "Good consistency" means that the sweetpotatoes possess a stiff consistency which may show a slight separation of free liquid.

(b) *(C) Classification.* If whole and pieces (whether packed singly or in combination) packed in a liquid packing medium or as "vacuum-pack (without packing media)" are fairly uniform in shape and size, a score of 14 to 16 points may be given; or if the canned sweetpotatoes packed as "solid-pack" (or "dry-pack") possess a fairly good consistency, a score of 14 to 16 points may be given. Canned sweetpotatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly uniform in shape and size" and "fairly good consistency" have the following meanings with respect to the following styles and types of packs of canned sweetpotatoes:

(1) *Whole and pieces (whether packed singly or in combination) in a liquid packing medium or "vacuum-pack (without packing media)."* "Fairly uniform in shape and size" means that the units of a single style may vary considerably in shape and that the weight of the largest unit, irrespective of style, is not

more than four times the weight of the second smallest unit, irrespective of style.

(2) *Whole, pieces, and mashed (whether packed singly or in combination) packed as "solid-pack (or "dry-pack")*. "Fairly good consistency" means that the sweetpotatoes possess a thick consistency but may not be free flowing.

(c) *(SStd) Classification.* Canned sweetpotatoes that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule).

§ 52.2053 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from particles of peel, secondary rootlets, untrimmed fibrous ends, discolored areas, or from other defects.

(b) *(A) Classification.* Canned sweetpotatoes that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the product contains not more than a slight amount of particles of peel, secondary rootlets, untrimmed fibrous ends, discolored areas, or other defects which do not affect materially the appearance or the edibility of the product.

(c) *(C) Classification.* If the canned sweetpotatoes are fairly free from defects, a score of 28 to 33 points may be given. Canned sweetpotatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the particles of peel, secondary rootlets, untrimmed fibrous ends, discolored areas, or other defects may be definitely noticeable but are not so prominent as to affect seriously the appearance or the edibility of the product.

(d) *(SStd) Classification.* Canned sweetpotatoes that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2054 *Character*—(a) *General.* The factor of character refers to the texture and condition of the flesh, the degree of freedom from tough or coarse fibers, the tenderness of the canned sweetpotatoes, and the tendency of sweetpotatoes packed in a liquid packing medium or as "vacuum-pack (without packing media)" to retain their apparent original conformation and size without disintegration.

(b) *(A) classification.* Canned sweetpotatoes that possess a good character may be given a score of 17 to 20 points. "Good character" has the following meanings with respect to the following styles and types of packs of canned sweetpotatoes:

(1) *Whole and pieces (whether packed singly or in combination) in a liquid packing medium or "vacuum-pack (without packing media)."* "Good character" means that the units possess a uniformly smooth texture, are practically free from tough or coarse fibers, and may be soft to firm but hold their apparent original conformation and size without material distintegration.

(2) *Whole, pieces, and mashed packed as "solid-pack" (or "dry-pack").* "Good character" means that any units present possess a uniformly smooth texture, are practically free from tough or coarse fibers, and may be soft to firm and that any mashed sweetpotatoes present possess a uniformly smooth texture, practically free from tough or coarse fibers.

(3) *Mashed.* "Good character" means that the mass possesses a uniformly smooth texture and is free from tough or coarse fibers.

(c) *(C) classification.* If the canned sweetpotatoes possess a fairly good character, a score of 14 to 16 points may be given. Canned sweetpotatoes that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" has the following meanings with respect to the following styles and types of packs of canned sweetpotatoes:

(1) *Whole and pieces (whether packed singly or in combination) in a liquid packing medium or "vacuum-pack (without packing media)."* "Fairly good character" means that the units possess a fairly uniform texture, may possess a few tough or coarse fibers, may be variable in tenderness but are not tough, may be very soft to very firm, and may possess slight or partial disintegration of the units.

(2) *Whole, pieces, and mashed packed as "solid-pack" (or "dry-pack").* "Fairly good character" means that any units present possess a fairly uniform texture, may possess a few tough or coarse fibers, may be variable in tenderness but are not tough, and may be very soft to very firm and that any mashed sweetpotatoes present possess a fairly uniform texture, may be coarse but are practically free from lumps, and may possess a few tough or coarse fibers.

(3) *Mashed.* "Fairly good character" means that the mass possesses a fairly uniform texture, may be coarse but is free from lumps, and that not more than a few tough or coarse fibers may be present.

(d) *(SStd) classification.* Canned sweetpotatoes that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

TOLERANCES

§ 52.2055 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned sweetpotatoes, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2056 *Score sheet for canned sweetpotatoes.*

Size and kind of container	------
Container mark or identification	------
Label	
Net weight (ounces)	------
Vacuum (inches)	------
If in a liquid packing medium:	
Drained weight (ounces)	------
Brix measurement	------
Sirup designation (heavy, light, etc.)	------
Color	------
Style and type of pack	------
Count (whole)	------

Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1] 14-16	
		(D)	[1] 0-13	
Shape and size or consistency.	20	(A)	17-20	
		(C)	[1] 14-16	
		(D)	[1] 0-13	
Absence of defects	40	(A)	34-40	
		(C)	[1] 28-33	
		(D)	[1] 0-27	
Character	20	(A)	17-20	
		(C)	[1] 14-16	
		(D)	[1] 0-13	
Total score	100			

Flavor and odor	------
Grade	------

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED TANGERINE JUICE[1]

PRODUCT DESCRIPTION AND GRADES

§ 52.2071 *Product description.* Canned tangerine juice is the undiluted, unconcentrated, unfermented juice obtained from mature fresh fruit of the Mandarin orange (Citrus reticulata) which fruit has been properly washed; is packed with or without the addition of sweetening ingredients; is sufficiently processed by heat to assure preservation of the product; and is packed in containers which are hermetically sealed.

§ 52.2072 *Grades of canned tangerine juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned tangerine juice that shows no coagulation; that possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned tangerine juice that may show slight coagulation; that possesses a good color; is fairly free from defects; possesses a good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "U. S. Grade D" or "Substandard" is the quality of canned tangerine juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.2073 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that the container be filled as full as practicable with tangerine juice and that the product occupy not less than 90 percent of the total capacity of the container.

FACTORS OF QUALITY

§ 52.2074 *Ascertaining the grade.* The grade of canned tangerine juice may be ascertained by considering in addition to the foregoing requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor. The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.2075 *Ascertaining the rating of each factor.* The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points.

§ 52.2076 *Color*—(a) *(A) classification.* Canned tangerine juice that possesses a very good color may be given a score of 17 to 20 points. "Very good color" means that the tangerine juice possesses a bright yellow to yellow-orange color typical of freshly extracted juice and is free from browning due to scorching, oxidation, caramelization, or other causes.

(b) *(C) classification.* If the canned tangerine juice possesses a good color, a score of 14 to 16 points may be given. Canned tangerine juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good color" means that the tangerine juice possesses a typical yellow to yellow-orange color that may be slightly amber or show evidence of slight browning, but is not off-color.

(c) *(SStd) classification.* Canned tangerine juice that for any reason fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2077 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from free and suspended pulp, recoverable oil, seeds or seed particles, or other defects.

(1) "Free and suspended pulp" means particles of membrane, core, skin, and other similar extraneous material in canned tangerine juice.

(b) *(A) classification.* Canned tangerine juice that is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that the juice may contain not more than 7 percent free and suspended pulp and that there may be present not more than 0.020 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that more than slightly affect the appearance of the product.

(c) *(C) classification.* If the canned tangerine juice is fairly free from defects, a score of 28 to 33 points may be given. Canned tangerine juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the juice may contain not more than 10 percent free and suspended pulp and that there may be present not more than 0.030 percent by volume of recoverable oil; and does not contain seeds or seed particles or other defects that materially affect the appearance of the product.

(d) *(SStd) classification.* If the canned tangerine juice fails to meet the requirements of paragraph (c) of this section, a score of 0 to 27 points may be given. Canned tangerine juice that falls into this classification shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2078 *Flavor*—(a) *(A) classification.* (1) Canned tangerine juice that possesses a very good flavor may be given a score of 34 to 40 points. "Very good flavor" means a fine, distinct canned tangerine juice flavor which is free from traces of scorching, caramelization, oxidation, or terpene; is free from off flavors of any kind; and meets the following requirements:

(i) Brix—Not less than 10.5 degrees.

(ii) Acid—Not less than 0.70 gram nor more than 1.40 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 10 to 1 nor more than 18 to 1.

(2) Canned tangerine juice is considered "sweet" if the juice possesses a very good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.70 gram nor more than 1.40 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 11 to 1 nor more than 18 to 1, provided that when the Brix is 16 degrees or more, the Brix-acid ratio may be less than 11 to 1.

(b) *(C) classification.* (1) If the canned tangerine juice possesses a good flavor, a score of 28 to 33 points may be given. Canned tangerine juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Good flavor" means a good, normal canned tangerine juice flavor which may have a slightly caramelized or slightly oxidized flavor but is free from off flavors of any kind and meets the following requirements:

(i) Brix—Not less than 10.0 degrees.

(ii) Acid—Not less than 0.55 gram nor more than 1.60 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 9 to 1.

(2) Canned tangerine juice is considered "sweet" if the juice possesses a good flavor and falls within the range of the following requirements:

(i) Brix—Not less than 12.5 degrees.

(ii) Acid—Not less than 0.65 gram nor more than 1.60 grams (calculated as anhydrous citric acid) per 100 ml. of juice.

(iii) Brix-acid ratio—Not less than 11 to 1, provided that when the Brix of the juice is 16 degrees or more the Brix-acid ratio may be less than 11 to 1.

(c) *(SStd) classification.* Canned tangerine juice that fails to meet the requirements of paragraph (b) of this section, is off flavor, or is unpalatable for any reason may be given a score of 0 to 27 points and shall not be graded above U. S. Grade D or Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.2079 *Definitions of terms.* (a) "Brix" means the degrees Brix of canned tangerine juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.) If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned tangerine juice may be determined by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as anhydrous citric acid) per 100 ml. of juice in canned tangerine juice determined by titration with standard sodium hydroxide solution using phenolphthalein indicator.

§ 52.2080 *Explanation of analyses.* (a) Free and suspended pulp is determined by the following method:

(1) Graduated centrifuge tubes with a capacity of 50 ml. are filled with canned tangerine juice and placed in a suitable centrifuge. The speed is adjusted according to diameter, as indicated in Table No. I, and the juice is centrifuged for exactly 10 minutes. As used in this section, "diameter" means the over-all distance between the bottoms of opposing centrifuge tubes in operating posi-

tion. After centrifuging, the milliliter reading at the top of the layer of pulp in the tube is multiplied by 2 to give the percentage of pulp.

TABLE NO. I

Diameter	Approximate revolutions per minute	Diameter	Approximate revolutions per minute
10 inches	1,609	15½ inches	1,292
10½ inches	1,570	16 inches	1,271
11 inches	1,534	16½ inches	1,252
11½ inches	1,500	17 inches	1,234
12 inches	1,468	17½ inches	1,216
12½ inches	1,438	18 inches	1,199
13 inches	1,410	18½ inches	1,182
13½ inches	1,384	19 inches	1,167
14 inches	1,359	19½ inches	1,152
14½ inches	1,336	20 inches	1,137
15 inches	1,313		

(b) Recoverable oil is determined by the following method:

(1) Equipment. Oil separatory trap similar to either of those illustrated in Figure 1 and Figure 2.[3]

Gas burner or hot plate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) Procedure. Exactly 2 liters of juice are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from bottom to top, and bring the juice to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute. By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(3) The number of milliliters of oil recovered divided by 20 equals the percent by volume of recoverable oil.

LOT CERTIFICATION TOLERANCES

§ 52.2081 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned tangerine juice, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2082 *Score sheet for canned tangerine juice.*

Size and kind of container				
Container mark or identification				
Label				
Liquid measure (fl. ounces)				
Vacuum (in inches)				
Brix (degrees)				
Acid (anhydrous citric: grams/100 ml.)				
Brix-acid ratio				
Pulp (free and suspended: percent)				
Recoverable oil (percent by volume)				
Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1] 14-16	
		(D)	[1] 0-13	
Absence of Defects	40	(A)	34-40	
		(C)	[1] 28-33	
		(D)	[1] 0-27	
Flavor	40	(A)	34-40	
		(C)	[1] 28-33	
		(D)	[1] 0-27	
Total score	100			
Grade				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF TOMATO CATSUP[1]

IDENTITY AND GRADES

§ 52.2101 *Identity.* Tomato catsup means the product as defined in the standard of identity for catsup, ketchup, catchup (21 CFR 53.10) issued pursuant to the Federal Food, Drug, and Cosmetic Act.

§ 52.2102 *Grades of tomato catsup.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of tomato catsup that possesses a good color; that possesses a good consistency; that is practically free from defects; that possesses a good flavor; that possesses a good finish; that has a total solids content of not less than 33 percent, by weight; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of tomato catsup that possesses a good color; that possesses a good consistency; that is practically free from defects; that possesses a good flavor; that possesses a good finish; that has a total solids content of not less than 29 percent, by weight; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart: *Provided,* That the tomato catsup may score not less than 18 points for the factor of consistency if the total score is not less than 85 points.

(c) "U. S. Grade C" or "U. S. Standard" is the quality of tomato catsup that possesses a fairly good color; that possesses a fairly good consistency; that is fairly free from defects; that possesses a good finish; that possesses a fairly good flavor; that has a total solids content of not less than 25 percent, by weight; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(d) "Substandard" is the quality of tomato catsup that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.2103 *Recommended fill of container for tomato catsup.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of tomato catsup be filled as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the capacity of the container.

FACTORS OF QUALITY

§ 52.2104 *Ascertaining the grade.* (a) The grade of tomato catsup is ascertained by considering in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency, absence of defects, and flavor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	25
Consistency	25
Absence of defects	25
Flavor	25
Total score	100

§ 52.2105 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive for example, 17 to 20 points means 17, 18, 19 or 20 points).

§ 52.2106 *Color*—(a) *General.* The amount of red in the tomato catsup is determined by comparing the color of the product with that produced by spinning a combination of the following Munsell color discs:

Disc 1—Red (5R 2.6/13) (glossy finish).
Disc 2—Yellow (2.5YR 5/12) (glossy finish).
Disc 3—Black (N1) (glossy finish).
Disc 4—Gray (N4) (mat finish).

(b) *(A) and (B) classification.* Tomato catsup that possesses a good color may be given a score of 21 to 25 points. "Good color" means that the color is typical of tomato catsup made from well ripened red tomatoes and which has been properly prepared and properly processed. Such color contains as much or more red than that produced by spinning the specified Munsell color discs in the following combinations: 65 percent of the area of Disc 1; 21 percent of the area of Disc 2; 14 percent of the area of either Disc 3 or Disc 4, or 7 percent of the area of Disc 3 and 7 percent of the area of Disc 4 whichever most nearly matches the reflectance of the tomato catsup. To receive a score in this classification, tomato catsup, when packed in glass, shall show no discoloration in the "neck" of the bottle.

(c) *(C) classification.* If the tomato catsup possesses a fairly good color, a score of 17 to 20 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the color is typical of tomato catsup and contains as much or more red than that produced by spinning the specified Munsell color discs in the following combinations: 53 percent of the area of Disc 1; 28 percent of the area of Disc 2; 19 percent of the area of either Disc 3 or Disc 4, or 9½ percent of the area of Disc 3 and 9½ percent of the area of Disc 4 whichever most nearly matches the reflectance of the tomato catsup.

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[3] Filed with the Division of the Federal Register as part of the original document.

[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) *(SStd) classification.* Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 16 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2107 *Consistency*—(a) *General.* The factor of consistency refers to the viscosity of the product and the tendency to hold its liquid portion in suspension.

(b) *(A) and (B) classification.* Tomato catsup that possesses a good consistency may be given a score of 22 to 25 points. "Good consistency" means that the tomato catsup shows not more than a slight separation of free liquid when poured on a flat grading tray; is not excessively stiff; and flows not more than 9 centimeters in 30 seconds at 20 degrees Centigrade in the Bostwick consistometer.

(c) *(C) classification.* If the tomato catsup possesses a fairly good consistency, a score of 18 to 21 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good consistency" means that the tomato catsup may show a noticeable, but not excessive, separation of free liquid when poured on a flat grading tray; is not excessively stiff; and flows not more than 14 centimeters in 30 seconds at 20 degrees Centigrade in the Bostwick consistometer.

(d) *(SStd) classification.* Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2108 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from defects such as: dark specks or scale-like particles, seeds, particles of seed, tomato peel, core material, or other similar substances. This factor is evaluated by observing a layer of the product on a smooth white, flat surface. Such layer is prepared by drawing a scraper with a clearance of 3/32 inch high by 7 inches long rapidly through the product in two horizontal planes so as to form an approximate square.

(b) *(A) and (B) classification.* Tomato catsup that is practically free from defects may be given a score of 21 to 25 points. "Practically free from defects" means that any defects present do not more than slightly affect the appearance or eating quality of the product.

(c) *(C) classification.* If the tomato catsup is fairly free from defects, a score of 18 to 20 points may be given. Tomato catsup that falls into this classification shall not be scored above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that any defects present may be noticeable but are not so large, so numerous, or of such contrasting color as to seriously affect the appearance or eating quality of the product.

(d) *(SStd) classification.* Tomato catsup that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 17 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2109 *Flavor*—(a) *(A) and (B) classification.* Tomato catsup that possesses a good flavor may be given a score of 21 to 25 points. "Good flavor" means a good, distinct flavor characteristic of good quality ingredients. Such flavor is free from scorching or any objectionable flavor of any kind.

(b) *(C) classification.* If the tomato catsup possesses only a fairly good flavor, a score of 17 to 20 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means a flavor characteristic of the ingredients in which there may be slight traces of undesirable flavor such as scorched, bitter, or astringent, but is free from objectionable or off flavor of any kind.

(c) *(SStd) classification.* Tomato catsup that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 16 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

DEFINITIONS

§ 52.2110 *Definitions of terms used in these standards.* (a) "Total solids" in tomato catsup for the purposes of these standards is the refractometric sucrose value of the filtrate determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions to which value is added 1 percent.

(b) "Good finish" means that the product has a uniform, smooth texture.

LOT CERTIFICATION TOLERANCES

§ 52.2111 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of tomato catsup, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule must be within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2112 *Score sheet for tomato catsup.*

Type of container				----
Container size				----
Container mark				----
Label				----

Net weight or volume				----
Total solids				----
Vacuum readings				----
Factors	Score points			
Color	25	(A-B)	21-25	
		(C)	[1] 17-20	
		(SStd.)	[1] 0-16	
Consistency	25	(A-B)	22-25	
		(C)	[1] 18-21	
		(SStd.)	[1] 0-17	
Absence of defects	25	(A-B)	21-25	
		(C)	[1] 18-20	
		(SStd.)	[1] 0-17	
Flavor	25	(A-B)	21-25	
		(C)	[1] 17-20	
		(SStd.)	[1] 0-16	
Total score	100			
Normal flavor and odor				----
Grade				----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN MIXED VEGETABLES[1]

PRODUCT DESCRIPTION, KINDS, STYLES, PROPORTIONS, AND GRADES

§ 52.2131 *Product description.* Frozen mixed vegetables consist of three or more succulent vegetables, properly prepared and properly blanched; may contain vegetables (such as, small pieces of sweet red peppers or sweet green peppers) added as garnish; and are frozen and maintained at temperatures necessary for the preservation of the product.

§ 52.2132 *Kinds and styles of basic vegetables.* It is recommended that frozen mixed vegetables, other than small pieces of vegetables added as garnish, consist of the following kinds and styles of vegetables as basic vegetables:

(a) Beans, green or wax: Cut style, predominantly of ½ inch to 1½ inch cuts;

(b) Beans, lima: Any single varietal type;

(c) Carrots: Diced style, predominantly of ⅜ inch to ½ inch cubes;

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(d) Corn, sweet: Golden (or Yellow) in whole kernel style;

(e) Peas: Early type or sweet type.

§ 52.2133 *Proportions of ingredients.* It is recommended that frozen mixed vegetables consist of three, four, or five basic vegetables in the following proportions:

(a) *Three vegetables.* A mixture of three basic vegetables in which any one vegetable is not more than 40 percent by weight of all the frozen mixed vegetables.

(b) *Four vegetables.* A mixture of four basic vegetables in which none of the vegetables is less than 8 percent by weight nor more than 35 percent by weight of all the frozen mixed vegetables.

(c) *Five vegetables.* A mixture of five basic vegetables in which none of the vegetables is less than 8 percent by weight nor more than 30 percent by weight of all the frozen mixed vegetables.

§ 52.2134 *Grades of frozen mixed vegetables.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of frozen mixed vegetables in which each basic vegetable possesses similar varietal characteristics; in which all vegetables possess a good color, are practically free from defects, possess a good character, possess a good flavor and odor; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart.

(b) "U. S. Grade B" or "U. S. Extra Standard" is the quality of frozen mixed vegetables in which each basic vegetable possesses similar varietal characteristics; in which all vegetables possess a reasonably good color, are reasonably free from defects, possess a reasonably good character, possess a fairly good flavor and odor; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of frozen mixed vegetables that fail to meet the requirements of U. S. Grade B or U. S. Extra Standard.

FACTORS OF QUALITY

§ 52.2135 *Ascertaining the grade.* (a) The grade of frozen mixed vegetables is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and character.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Character	40
Total score	100

(c) The scores for the factors of color, absence of defects, and character (with respect to each individual vegetable prior to cooking) are determined immediately after thawing so that the product is sufficiently free from ice crystals to permit proper handling as individual units; and representative samples of the product are cooked to ascertain tenderness of the frozen mixed vegetables, collectively, before final evaluation of the score for character. Flavor and odor are also ascertained on the cooked product.

(d) "Good flavor and odor" means that the product and each basic vegetable after cooking has a good, characteristic normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.

(e) "Fairly good flavor and odor" means that the product after cooking may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

§ 52.2136 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.2137 *Color*—(a) *General.* The factor of color refers to the general brightness of all the combined vegetables.

(b) (*A*) *classification.* Frozen mixed vegetables which possess a good color may be given a score of 17 to 20 points. "Good color" means that the combined basic vegetables as a mass are bright and characteristic of reasonably young or reasonably tender mixed vegetables that have been properly prepared and properly processed; that any pieces of vegetable material used for garnish are reasonably bright; and that none of the individual vegetables are off color for any reason.

(c) (*B*) *classification.* If the frozen mixed vegetables possess a reasonably good color, a score of 14 to 16 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good color" means that the combined basic vegetables as a mass are reasonably bright and characteristic of fairly young or fairly tender mixed vegetables that have been properly prepared and properly processed; that any pieces of vegetable material used for garnish may be only fairly bright but are not off color for any reason; and that none of the individual vegetables are off color for any reason.

(d) (*SStd*) *classification.* If the frozen mixed vegetables fail to meet the requirements of paragraph (c) of this section, a score of 0 to 13 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2138 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous vegetable materials, slightly damaged units moderately damaged units, seriously damaged units, and any other defects which detract from the appearance or edibility of the product.

(1) "Harmless extraneous vegetable material" means any vegetable substance other than from any of the basic vegetables or garnish and any portions of the basic vegetables which are normally removed in preparation for processing. Such materials include, but are not limited to, "Small pieces" and "large pieces" as follows:

(i) A "small piece of harmless extraneous vegetable material" is any piece or unit of such material similar in shape and the equivalent in size or smaller than 3/16 square inch of leafy material or loose pieces of pods from peas or lima beans, tough or woody stems of any size other than unstemmed units of green or wax beans, 1/4-inch cube of corn cob material, 1/2 square inch of corn husk, and 3/8-inch diameter thistle buds;

(ii) A "large piece of harmless extraneous vegetable material" is any piece or unit of such material similar in shape and larger in size than the equivalent of an applicable kind of "small piece of harmless extraneous vegetable material."

(2) "Slightly damaged unit" means any unit of the basic vegetable or garnish that is affected by slight blemishes, slight discoloration, or similar injury that are noticeable but do not materially affect the appearance or edibility of the unit, and includes, but is not limited to, light discoloration of the hilum of lima beans or other light discoloration of the skin which does not penetrate into the cotyledon of lima beans.

(3) "Moderately damaged unit" means any unit of a basic vegetable or garnish that is affected by blemishes, discoloration, or any other similar injury that materially affects the appearance or edibility of the unit and has the following specific meanings for the respective vegetables:

(i) *Beans, green or wax.* Any unit blemished by scars, by pathological injury, by insect injury, or by other means which in the aggregate exceeds the area of a circle 1/8 inch in diameter.

(ii) *Beans, lima.* A bean or portion thereof that is spotted or otherwise definitely discolored or that is blemished by pathological injury, by insect injury, or by other means other than light discoloration.

(iii) *Carrots.* Any unit possessing an unpeeled area greater than the area of a circle 1/8 inch in diameter; and any unit blemished by internal or external discoloration, by sunburn or green color, by pathological injury, by insect injury, or by other means.

(iv) *Corn.* Any kernel or portion thereof that possesses serious brown or black discoloration.

(v) *Peas.* Any spotted pea or any off-colored pea (such as brown, gray, cream, or yellow-white) that is abnormally defective and that definitely lacks any tinge of green color.

(vi) *Garnish.* Any piece blemished by discoloration, by pathological injury, by insect injury, or by other means which in the aggregate exceeds the area of a circle 1/8 inch in diameter.

(4) "Seriously damaged unit" means any unit of the basic vegetable or garnish, other than damaged corn kernels, that is damaged to the extent that the appearance and edibility of the unit is seriously affected and includes, but is not limited to, "shriveled" lima beans that are materially wrinkled and not of nor-

mal plumpness; "sprouted" lima beans that show an external shoot protruding beyond the cotyledon or skin; and any unit with brown or very black or very dark spots and serious insect injury regardless of the area affected.

(5) "Other defects" means any defects not specifically mentioned that affect the appearance or edibility of the product, and includes, but are not limited to the following:

(i) *Beans, green or wax.* Loose seeds and portions thereof; and pod sections with very ragged edges that are partially cut or split into two parts, or that are markedly shorter or longer than the predominating lengths of the cut units;

(ii) *Beans, lima.* Mashed beans, broken beans, loose cotyledons, loose skins, and any portions thereof;

(iii) *Carrots.* Crushed, broken, cracked, or irregularly shaped units; units with excessively frayed edges and surfaces; and units markedly smaller than one-half the volume of, or markedly larger than, the predominating size of cubes;

(iv) *Corn.* Crushed kernels, ragged kernels, loose skins, and dark and objectionable pieces of silk more than ½ inch in length; and

(v) *Peas.* Mashed peas, broken peas, loose cotyledons, loose skins, and any portions thereof.

(b) (*A*) *classification.* Frozen mixed vegetables that are practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present no more than the following defects within the limits stated:

(1) No large pieces of harmless extraneous vegetable material; but 1 small piece of harmless extraneous vegetable material for each 16 ounces net weight, or for each package if the package is less than 16 ounces, of frozen mixed vegetables: *Provided,* That the combined weight of all the harmless extraneous material is not more than ½ of 1 percent, by weight, of the frozen mixed vegetables;

(2) 2 moderately damaged units for each 3 ounces of frozen mixed vegetables and 1 seriously damaged unit for each 4 ounces of frozen mixed vegetables: *Provided,* That slightly damaged, moderately damaged, and seriously damaged units, either singly or in combination, do not materially affect the appearance or edibility of the frozen mixed vegetables; and

(3) Other defects, individually or collectively, do not materially affect the appearance of the frozen mixed vegetables.

(c) (*B*) *classification.* If the frozen mixed vegetables are reasonably free from defects, a score of 28 to 33 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably free from defects" means that there may be present no more than the following defects within the limits stated:

(1) 1 large piece of harmless extraneous vegetable material and 2 small pieces of harmless extraneous vegetable material for each 16 ounces net weight, or for each package if the package is less than 16 ounces, of frozen mixed vegetables: *Provided,* That the combined weight of all the harmless extraneous material is not more than ½ of 1 percent, by weight, of the frozen mixed vegetables;

(2) 4 moderately damaged units for each 3 ounces of frozen mixed vegetables and 1 seriously damaged unit for each 2 ounces of frozen mixed vegetables: *Provided,* That slightly damaged, moderately damaged, and seriously damaged units, either singly or in combination, do not seriously affect the appearance or edibility of the frozen mixed vegetables; and

(3) Other defects, individually or collectively, do not seriously affect the appearance of the frozen mixed vegetables.

(d) (*SStd*) *classification.* If the frozen mixed vegetables fail to meet the requirements of paragraph (c) of this section, a score of 0 to 27 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2139 *Character*—(a) *General.* The factor of character refers to the texture, the maturity, and the degree of development of the pods and seeds in green beans or wax beans; the tenderness of lima beans; the tenderness and the degree of freedom from stringy or coarse fibers in carrots; the tenderness and maturity or starchiness of the corn; the tenderness or maturity of the peas; and to the tenderness of the combined frozen mixed vegetables after cooking.

(b) (*A*) *classification.* Frozen mixed vegetables which collectively and individually possess a good character may be given a score of 34 to 40 points. "Good character" means that the combined vegetables after cooking are tender and that the individual vegetables prior to cooking meet the following requirements:

(1) *Beans, green or wax.* The bean pods are full-fleshed and tender, the seeds are in the earlier stages of maturity, and both the bean pods and seeds are the equivalent of frozen green beans or wax beans that would score not less than 36 points for the factor of "Texture and Maturity" as outlined in the "United States Standards for Grades of Frozen Snap Beans."

(2) *Beans, lima.* The lima beans, except for an occasional bean that may be white, are tender.

(3) *Carrots.* The units are tender and are the equivalent of frozen diced carrots that would score not less than 26 points for the factor of "Texture" as outlined in the "United States Standards for Grades of Frozen Diced Carrots."

(4) *Corn.* The kernels are at least in the cream stage of maturity, have at least a reasonably tender texture, and are the equivalent of frozen whole-grain corn that would score not less than 43 points for the factor of "Tenderness and Maturity" as outlined in the "United States Standards for Grades of Frozen Whole Kernel (or Whole Grain) Corn."

(5) *Peas.* The peas are at least reasonably tender and are the equivalent of frozen peas that would score not less than 34 points for the factor of "Tenderness and Maturity" as outlined in the "United States Standards for Grades of Frozen Peas."

(c) (*B*) *classification.* If the frozen mixed vegetables, collectively and individually, possess a reasonably good character, a score of 28 to 33 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above U. S. Grade B or U. S. Extra Standard, regardless of the total score for the product (this is a limiting rule). "Reasonably good character" means that the combined vegetables after cooking are reasonably tender and practically free from tough fibers and that the individual vegetables prior to cooking meet the following requirements:

(1) *Beans, green or wax.* The bean pods are at least fairly tender and are the equivalent of frozen green beans or wax beans that would score not less than 30 points for the factor of "Texture and Maturity" as outlined in the "United States Standards for Grades of Frozen Snap Beans."

(2) *Beans, lima.* The lima beans are at least fairly tender and not more than 10 percent by count of all the lima beans may be white.

(3) *Carrots.* The units are at least reasonably tender and are the equivalent of frozen diced carrots that would score not less than 24 points for the factor of "Texture" as outlined in the "United States Standards for Grades of Frozen Diced Carrots."

(4) *Corn.* The kernels are at least fairly tender and are the equivalent of frozen whole-grain corn that would score not less than 38 points for the factor of "Tenderness and Maturity" as outlined in the "United States Standards for Grades of Frozen Whole Kernel (or Whole Grain) Corn."

(5) *Peas.* The peas are at least fairly tender and are the equivalent of frozen peas that would score not less than 30 points for the factor of "Tenderness and Maturity" as outlined in the "United States Standards for Grades of Frozen Peas."

(d) (*SStd*) *classification.* If the frozen mixed vegetables, collectively or individually, fail to meet the requirements of paragraph (c) of this section, a score of 0 to 27 points may be given. Frozen mixed vegetables that fall into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.2140 *Explanation of terms and analyses.* (a) The "proportion of ingredients" are determined on the thawed vegetables by the following procedure:

(1) Separate and assemble from all the containers in the sample each of the basic vegetables;

(2) Weigh each basic vegetable thus composited to obtain the "aggregate weight" of each basic vegetable from all the containers in the sample;

(3) Add the aggregate weights of all the basic vegetables to obtain the "grand total weight" of all the basic vegetables from all containers in the sample; and then

(4) Calculate the percentage of each basic vegetable in the sample by dividing the "aggregate weight" of each basic vegetable by the "grand total weight" of all the basic vegetables.

LOT CERTIFICATION TOLERANCES

§ 52.2141 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of frozen mixed vegetables, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if:

(1) Not more than one-sixth of such containers fails to meet all the requirements of the grade indicated by the average of such total scores, and, with respect to such containers which fail to meet the requirements of the indicated grade by reason of a limiting rule, the average score of all containers in the sample for the factor, subject to such limiting rule, is within the range for the grade indicated;

(2) None of the containers comprising the sample falls more than 4 points below the minimum score for the grade indicated by the average of the total scores; and

(3) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2142 *Score sheet for frozen mixed vegetables.*

Size and kind of container ----------	----------
Container mark or Identification: Packages ----------	----------
Container mark or Identification: Cases ----------	----------
Label (list of ingredients, etc.) ----------	----------
Net weight (ounces) ----------	----------

Kinds, styles of ingredients	Aggregate weight each ingredient	Proportion of ingredients
Garnish.		
Beans—Cut: ( ) green; ( ) wax--- (″) to (″); ( ) round; ( ) flat----	--ozs	----%
Lima beans----------	--ozs	----%
Carrots—Diced (approx. (″) cubes)	--ozs	----%
Corn—whole kernel—Golden------	--ozs	----%
Peas: ( ) sweet; ( ) early--------	--ozs	----%
Grand total, weight----------	--ozs	100%
( ) Meets proportions; ( ) Fails proportions----------	--------	----------

Factors	Score			
Color----------	20	(A) (B)[1] (SStd)[1]	17–20 14–16 0–13	
Absence of defects-----	40	(A) (B)[1] (SStd)[1]	34–40 28–33 0–27	
Character----------	40	(A) (B)[1] (SStd)[1]	34–40 28–33 0–27	Thawed: Beans. Limas. Carrots. Corn. Peas.
All vegetables after cooking: ( ) tender; ( ) reasonably tender, etc----				
Flavor and odor after cooking: ( ) good; ( ) fairly good; ( ) off.				
Total score----------				
Grade----------				

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED APPLES[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.2161 *Product description.* Canned apples is the product prepared from sound, fresh apples of proper maturity and proper ripeness, which fruit is packed with or without any of the following ingredients: Water, salt, spices, nutritive sweetening ingredients, and any other ingredients permissible under the provision of the Federal Food, Drug and Cosmetic Act, and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.2162 *Styles of canned apples.* "Sliced" means canned apples consisting of segments of apples cut longitudinally and radially from the core axis.

§ 52.2163 *Grades of canned apples.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned apples that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a good color; that are practically uniform in size; that are practically free from defects; that possess a good character; and that score not less than 85 points when scored in accordance with the scoring system outlined in this subpart: *Provided,* That the canned apples may be fairly uniform in size, if the total score is not less than 85 points.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned apples that possess similar varietal characteristics; that possess a normal flavor and odor; that possess a fairly good color; that are fairly uniform in size; that are fairly free from defects; that possess a fairly good character; and that score not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of canned apples that fail to meet the requirements of "U. S. Grade C" or "U. S. Standard."

FILL OF CONTAINER AND DRAINED WEIGHTS

§ 52.2164 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled with apples as full as practicable without impairment of quality and that the product and packing medium occupy not less than 90 percent of the volume of the container.

§ 52.2165 *Recommended minimum drained weights.* (a) Minimum drained weight recommendations for canned apples shown in Table I of this paragraph are not incorporated in the grades of the finished product since drained weight, as such, is not a factor of quality for the purposes of these grades. The drained weight of canned apples is determined by emptying the contents of the container upon a United States Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937-inch, ±3% square openings) so as to distribute the product evenly, inclining the sieve slightly to facilitate drainage, and allowing to drain for two minutes. The drained weight is the weight of the sieve and the apples less the weight of the dry sieve. A sieve of 8 inches in diameter is used for No. 3 size cans (404 x 414) and smaller, and a sieve 12 inches in diameter is used for containers larger than the No. 3 size can.

TABLE I—RECOMMENDED MINIMUM DRAINED WEIGHTS

Can size	Can dimensions (in inches)		Drained weight (in ounces)
	Diameter	Weight	
No. 303----------	$3\frac{3}{16}$	$4\frac{6}{16}$	14
No. 2----------	$3\frac{7}{16}$	$4\frac{9}{16}$	18
No. 2½----------	$4\frac{1}{16}$	$4\frac{11}{16}$	26
No. 10----------	$6\frac{3}{16}$	7	96

(b) Compliance with the recommended drained weights for canned apples is determined by averaging the drained weights from all the containers which are representative of a specific lot and such lot is considered as meeting the recommendation if:

(1) The average drained weight from all the containers meets the recommended drained weight;

(2) One half—or more of the containers meet the recommended drained weight; and

(3) The drained weights from the containers which do not meet the recommended drained weights are within the range of variability for good commercial practice.

FACTORS OF QUALITY

§ 52.2166 *Ascertaining the grade.* (a) The grade of canned apples is ascertained by considering the requirements with respect to varietal characteristics, flavor, and odor, which are not scored and the factors of color, uniformity of size, absence of defects, and character which are scored.

(b) The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color ----------	20
Uniformity of size----------	20
Absence of defects----------	20
Character ----------	40
Total score----------	100

(c) "Normal flavor and odor" means that the product is free from objectionable flavors and objectionable odors of any kind.

§ 52.2167 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for such factors and expressed numerically. The numerical range within each factor which is scored is inclusive (for example "17 to 20 points" means 17, 18, 19, or 20 points).

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[1] The requirement of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

§ 52.2168 *Color*—(a) *(A) classification.* Canned apples that possess a good color may be given a score of 17 to 20 points. "Good color" means that the slices, internally and externally, possess a reasonably uniform bright color, characteristic of apples of similar varieties.

(b) *(C) classification.* If the canned apples possess a fairly good color, a score of 14 to 16 points may be given. Canned apples that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the slices possess a color characteristic of apples of similar varieties; may vary noticeably in color; may possess a slight, but not markedly, brown, pink, or grey cast; and are practically free from internal discoloration.

(c) *(SStd) classification.* Canned apples that fail to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2169 *Uniformity of size*—(a) *General.* The factor of uniformity of size refers to the degree of wholeness and to the uniformity of thickness of the slices.

(1) "Practically whole slice" means that the individual slice may be cut or broken but at least three-fourths of the apparent original slice remains.

(b) *(A) classification.* Canned apples that are practically uniform in size may be given a score of 17 to 20 points. "Practically uniform in size" means that at least 90 percent of the drained weight of the product consists of whole or practically whole slices of 1¼ inches in length or longer; and that of the 90 percent of the drained weight of the product consisting of units of the most uniform thickness, the thickness of the slices does not vary more than ¼ inch.

(c) *(C) classification.* Canned apples that are fairly uniform in size may be given a score of 14 to 16 points. "Fairly uniform in size" means that at least 75 percent of the drained weight of the product consists of whole or practically whole slices of 1¼ inches in length or longer.

(d) *(SStd) classification.* Canned apples that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2170 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from harmless extraneous matter, from damaged or seriously damaged slices, and from carpel tissue.

(1) "Harmless extraneous matter" means any vegetable substance (including, but not being limited to, a leaf, stem, or portions thereof, cores and portions of cores, and seeds) that is harmless.

(2) "Damaged unit" means any unit possessing green peel that exceeds in the aggregate an area of a circle ½ inch in diameter, or red peel that exceeds in the aggregate an area of a circle ¼ inch in diameter, light brown bruise that exceeds the area of a circle ½ inch in diameter or which is more than ¼ inch deep, and any unit in which the appearance or eating quality is materially affected by blossom end material, dark brown bruise or other internal or external discoloration, pathological injury, insect injury, or by any other means.

(3) "Seriously damaged unit" means any unit damaged to such an extent that the appearance or eating quality is seriously affected.

(4) "Practically free from carpel tissue" means that for each 16 ounces of the product, the carpel tissue present does not exceed in the aggregate an area equal to ¾ square inch.

(5) "Fairly free from carpel tissue" means that for each 16 ounces of the product the carpel tissue present does not exceed an area equal to 1½ square inches.

(b) *(A) classification.* Canned apples that are practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that extraneous matter may be present that does not materially affect the appearance or eating quality of the product; that the product is practically free from carpel tissue; and that not more than a total of 5 percent, by weight, of the units may be damaged of which not more than 1 percent, by weight, of all the units may be seriously damaged: *Provided,* That extraneous matter, damaged and seriously damaged units, singly or in combination, do not materially affect the appearance or eating quality of the product.

(c) *(C) classification.* Canned apples that are fairly free from defects may be given a score of 14 to 16 points. Canned apples that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that extraneous matter may be present that does not seriously affect the appearance or eating quality of the product; that the product is fairly free from carpel tissue; and that not more than a total of 15 percent, by weight, of the units may be damaged of which not more than 3 percent, by weight, of all the units may be seriously damaged: *Provided,* That extraneous matter, damaged and seriously damaged units, singly or in combination, do not seriously affect the appearance or eating quality of the product.

(d) *(SStd) classification.* Canned apples that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2171 *Character*—(a) *General.* The factor of character refers to the texture of the slices and to the tendency to retain their conformation without material softening or disintegration.

(1) "Mushy apples" means slices or portions thereof that are a pulpy mass and of a consistency approximating applesauce.

(b) *(A) classification.* Canned apples that possess a good character may be given a score of 34 to 40 points. "Good character" means that the slices possess a reasonably tender texture, and that not more than 5 percent of the drained weight of the product consists of mushy apples.

(c) *(C) classification.* Canned apples that possess a fairly good character may be given a score of 28 to 33 points. Canned apples that fall into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good character" means that the slices may be variable in texture, with not more than 15 percent of the drained weight of the product consisting of slices that are markedly hard, markedly soft, or mushy.

(d) *(SStd) classification.* Canned apples that fail to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.2172 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned apples, the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2173 *Score sheet for canned apples.*

Size and kind of container	
Container mark or identification	
Label	
Net weight (ounces)	
Vacuum readings (in inches)	
Drained weight (ounces)	

Factors	Score points			
I. Color	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
II. Uniformity of size	20	(A)	17-20	
		(C)	14-16	
		(SStd)	[1] 0-13	
III. Absence of defects	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
IV. Character of fruit	40	(A)	34-40	
		(C)	[1] 28-33	
		(SStd)	[1] 0-27	
Total score	100			
Normal flavor and odor				----
Grade				----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CHILI SAUCE [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.2191 *Product description.* Chili sauce is the product prepared from mature, clean, sound, tomatoes of the red or reddish varieties which are peeled and chopped or crushed, or all (or a portion) of the tomatoes may be chopped, crushed, or macerated and the peelings screened out in a manner so that at least a substantial portion of the seed remains in the product, to which are added salt, spices, vinegar, nutritive sweetening ingredients, and to which may be added vegetable flavoring ingredients such as chopped onion, chopped green or red pepper, chopped green tomatoes, chopped celery, and sweet pickle relish in such quantities as will not materially alter the appearance of the product with respect to the predominance of the tomato ingredient, and any other ingredients permissible under the provisions of the Federal Food, Drug, and Cosmetic Act. The chili sauce is processed in accordance with good commercial practice; is packed in hermetically sealed containers; and is sufficiently processed by heat, before or after sealing, to assure preservation of the product. The refractive index of the filtrate of the chili sauce at 20 degrees C. is not less than 1.3784.

§ 52.2192 *Grades of chili sauce.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of chili sauce that possesses a good color; that possesses a good consistency; that possesses a good character; that is practically free from defects; that possesses a good flavor; and that scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart: *Provided,* That the chili sauce may score not less than 14 points on the factor of character if the total score is not less than 85 points.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of chili sauce that possesses a fairly good color; that possesses a fairly good consistency; that possesses a fairly good character; that is fairly free from defects; that possesses a fairly good flavor; and that scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.

(c) "Substandard" is the quality of chili sauce that fails to meet the requirements of "U. S. Grade C" or "U. S. Standard."

FILL OF CONTAINER

§ 52.2193 *Recommended fill of container for chili sauce.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of chili sauce be filled as full as practicable without impairment of quality and that the product occupy not less than 90 percent of the capacity of the container.

FACTORS OF QUALITY

§ 52.2194 *Ascertaining the grade.* (a) The grade of the chili sauce is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, consistency, character, absence of defects, and flavor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given for each such factor is:

Factors:	*Points*
Color	20
Consistency	20
Character	20
Absence of defects	20
Flavor	20
Total score	100

§ 52.2195 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, and 20 points).

§ 52.2196 *Color*—(a) *(A) classification.* Chili sauce that possesses a good color may be given a score of 17 to 20 points. "Good color" means that the color of the chili sauce is bright; the color of the tomato ingredient is predominant and characteristic of properly prepared, well ripened, properly processed tomatoes; and that the added seasoning ingredients do not materially detract from the appearance of the product.

(b) *(C) classification.* If the chili sauce possesses a fairly good color, a score of 14 to 16 points may be given. Chili sauce that scores in this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the color of the chili sauce may be slightly dull but not off color; the color of the tomato ingredient is characteristic of properly prepared, fairly well ripened, properly processed tomatoes; and that the added seasoning ingredients do not seriously detract from the appearance of the product.

(c) *(SStd) classification.* Chili sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2197 *Consistency*—(a) *(A) classification.* Chili sauce that possesses a good consistency may be given a score of 17 to 20 points. "Good consistency" means that the chili sauce is heavy bodied and when emptied from the container to a flat surface forms a moderately mounded mass and shows not more than a slight separation of free liquid at the edges of the mass.

(b) *(C) classification.* If the chili sauce possesses only a fairly good consistency a score of 14 to 16 points may be given. Chili sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good consistency" means that the chili sauce, when emptied from the container to a flat surface, may tend to level itself, or may show a moderate separation of free liquid at the edges of the mass, but is not excessively stiff or excessively liquid.

(c) *(SStd) classification.* Chili sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2198 *Character* — (a) *General.* The factor of character refers to the degree of disintegration of the tomatoes and the tenderness and texture of the onion, celery, pickle relish, or other similar ingredients.

(b) *(A) classification.* Chili sauce that possesses a good character may be given a score of 17 to 20 points. "Good character" means that the product does not have a finely comminuted appearance and that the onion, celery, pickle relish, and other similar ingredients are tender, reasonably firm, or crisp in texture.

(c) *(C) classification.* If the chili sauce possesses a fairly good character a score of 14 to 16 points may be given. "Fairly good character" means that the product may be finely comminuted and that the other vegetable ingredients may be only fairly tender.

(d) *(SStd) classification.* Chili sauce that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2199 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from dark specks or scale-like particles, discolored seeds or pieces of abnormally discolored ingredients, tomato peel, and other defects.

(b) *(A) classification.* Chili sauce that is practically free from defects may be given a score of 17 to 20 points. "Practically free from defects" means that any defects present do not more than slightly affect the appearance or eating quality of the product.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

(c) (*C*) *classification.* If the chili sauce is fairly free from defects, a score of 14 to 16 points may be given. Chili sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that any defects present may be noticeable but are not so large, so numerous, or so prominent as to seriously affect the appearance or eating quality of the product.

(d) (*SStd*) *classification.* Chili sauce that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2200 *Flavor*—(a) (*A*) *classification.* Chili sauce that possesses a good flavor may be given a score of 17 to 20 points. "Good flavor" means a good distinct flavor characteristic of chili sauce properly prepared from good quality ingredients. Such flavor is free from scorching or any objectionable flavor of any kind.

(b) (*C*) *classification.* If the chili sauce possesses a fairly good flavor, a score of 14 to 16 points may be given. Chili sauce that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means that the product may be lacking in good characteristic flavor, but is free from objectionable or off-flavors of any kind.

(c) (*SStd*) *classification.* Chili sauce that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

LOT CERTIFICATION TOLERANCES

§ 52.2201 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of chili sauce the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2202 *Score sheet for chili sauce.*

Type of container				----
Container size				----
Label				----
Net weight or volume				----
Refractive index				----
Vacuum readings				----
Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
Consistency	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
Character	20	(A)	17-20	
		(C)	14-16	
		(SStd)	[1] 0-13	
Absence of defects	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
Flavor	20	(A)	17-20	
		(C)	[1] 14-16	
		(SStd)	[1] 0-13	
Total score	100			
Normal flavor and odor				----
Grade				----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CONCENTRATED ORANGE JUICE FOR MANUFACTURING [1]

PRODUCT DESCRIPTION AND GRADES

§ 52.2221 *Product description.* Concentrated orange juice for manufacturing is the concentrated product obtained from sound, mature fruit of the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines. The fruit is prepared by sorting and by washing prior to extraction of the juice and the extracted juice is concentrated. The concentrated orange juice is processed in accordance with good commercial practice; and may or may not require processing by heat or subsequent refrigeration to assure preservation of the product but is not the product which is considered "frozen concentrated orange juice." The finished product does not contain any additives except that cold-pressed oil to standardize flavor and chemical preservatives permissible under provisions of the Federal Food, Drug, and Cosmetic Act may have been added.

(a) The Brix value of the finished concentrate shall be not less nor more than the following for the respective dilution factor of canned concentrated orange juice for manufacturing:

Dilution factor	Brix value of the finished concentrate	
	Minimum Brix value	Maximum Brix value
	Degrees	*Degrees*
1 plus 3	41.5	44.0
1 plus 4	50.0	53.0
1 plus 5	57.8	61.2
1 plus 6	65.2	No limit

(b) Concentrated orange juice for manufacturing of other dilution factors between "1 plus 3" to "1 plus 6" or more than "1 plus 6" shall result in a Brix (upon reconstitution as prescribed by the processor or as prescribed by the label on the container, if labeled) of not less than 11.7 degrees.

§ 52.2222 *Grades of concentrated orange juice for manufacturing.* (a) "U. S. Grade A for Manufacturing" or "U. S. Fancy for Manufacturing" is the quality of concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses a reasonably good color; is practically free from defects; possesses a reasonably good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this section.

(b) "U. S. Grade C for Manufacturing" or "U. S. Standard for Manufacturing" is the quality of concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses a fairly good color; is fairly free from defects; possesses a fairly good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this section.

(c) "Substandard for Manufacturing" is the quality of concentrated orange juice that fails to meet the requirements of U. S. Grade C for Manufacturing or U. S. Standard for Manufacturing.

FILL OF CONTAINER

§ 52.2223 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled with concentrated orange juice as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.2224 *Ascertaining the grade.* The grade of concentrated orange juice for manufacturing is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.2225 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.2226 *Color*—(a) (*A–Mfg*) *classification.* Concentrated orange juice of which the reconstituted juice possesses a reasonably good color may be given a score of 17 to 20 points. "Reasonably good color" means that the color is a reasonably good yellow to yellow-orange color typical of properly processed and properly concentrated orange juice and is reasonably free from browning due to scorching, oxidation, caramelization, or other causes.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or with applicable State laws and regulations.

(b) *(C–Mfg) classification.* It the reconstituted juice possesses a fairly good color, a score of 14 to 16 points may be given. Concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C for Manufacturing or U. S. Standard for Manufacturing, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the orange juice may be slightly amber or very light in color and may show evidence of slight browning but is not off-color.

(c) *(SStd–Mfg) classification.* Concentrated orange juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard for Manufacturing, regardless of the total score for the product (this is a limiting rule).

§ 52.2227 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds and portions thereof, from excessive juice cells, from pulp, and from other defects.

(1) "Pulp" means particles of membrane, core, and peel.

(b) *(A–Mfg) classification.* Concentrated orange juice of which the reconstituted juice is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present:

(1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not materially affect the appearance or drinking quality of the juice;

(2) Juice cells and pulp that do not materially affect the appearance or drinking quality of the juice; and

(3) Other defects that are not more than slightly objectionable.

(c) *(C–Mfg) classification.* If the reconstituted juice is fairly free from defects, a score of 28 to 33 points may be given. Concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C for Manufacturing or U. S. Standard for Manufacturing, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present:

(1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not seriously affect the appearance or drinking quality of the juice;

(2) Juice cells and pulp that do not seriously affect the appearance or drinking quality of the juice; and

(3) Other defects that are not materially objectionable.

(d) *(SStd–Mfg) classification.* Concentrated orange juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard for Manufacturing, regardless of the total score for the product (this is a limiting rule).

§ 52.2228 *Flavor*—(a) *(A–Mfg) classification.* Concentrated orange juice of which the reconstituted juice possesses a reasonably good flavor may be given a score of 34 to 40 points. "Reasonably good flavor" means that the flavor is typical of reconstituted concentrated orange juice from properly processed and concentrated orange juice; that the flavor may range from high acidity to low acidity; is practically free from traces of scorching, caramelization, oxidation, or terpene; and is free from off-flavors of any kind. To score not less than 34 points the concentrated orange juice shall meet the following requirement: The ratio of the Brix value to acid is not less than 8 to 1 nor more than 18 to 1.

(b) *(C–Mfg) classification.* If the reconstituted juice possesses a fairly good flavor, a score of 28 to 33 points may be given. Concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C for Manufacturing or U. S. Standard for Manufacturing, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means a normal flavor for reconstituted concentrated orange juice; and that the flavor may range from high acidity to low acidity, may have a slightly caramelized or slightly oxidized flavor or may possess traces of terpene but is free from off-flavors of any kind. To score not less than 28 points concentrated orange juice shall meet the following requirement: the ratio of the Brix value to acid is not less than 8 to 1 nor more than 21 to 1.

(c) *(SStd–Mfg) classification.* If the concentrated orange juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Concentrated orange juice that falls into this classification shall not be graded above Substandard for Manufacturing, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.2229 *Explanation of terms and analyses.* (a) "Reconstituted juice" means the product obtained by mixing thoroughly one part by volume of the canned concentrated orange juice with a stated volume of water. For example, a dilution factor of "1 plus 6" means that to one part by volume of concentrated orange juice 6 parts by volume of water are added to produce a reconstituted juice. Distilled water is used in reconstituting the product for testing flavor.

(b) "Reconstitution as declared" means any defined reconstitution, such as in labeling: For example, "this can (46 oz.) made up to 10 quarts" means a "1 plus 5.95" concentrate.

(c) "Reconstitutes properly" means that the reconstituted juice shows no material separation of colloidal or suspended matter after standing four (4) hours at a temperature of not less than 68 degrees Fahrenheit in a clear glass tube or cylinder (such as a 50 ml. graduated cylinder).

(d) "Acid" means the percent by weight of acid (calculated as anhydrous citric acid) in concentrated orange juice and is determined by titration with standard sodium hydroxide solution using phenolphthalein as indicator.

(e) "Brix value" of the concentrate is the refractometric sucrose value determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions and to which the applicable correction for acid is added. (See Table I for corrections.)

TABLE I—CORRECTIONS FOR OBTAINING BRIX VALUE[1]

Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value	Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value
2.0	0.39	3.6	0.70
2.2	.43	3.8	.74
2.4	.47	4.0	.78
2.6	.51	4.2	.81
2.8	.54	4.4	.85
3.0	.58	4.6	.89
3.2	.62	4.8	.93
3.4	.66	5.0	.97

[1] Source: "Refractometric Determination of Soluble Solids in Citrus Juices," by J. W. Stevens and W. E. Baier, from the Analytical Edition of Industrial and Engineering Chemistry, vol. II, p. 447, Aug. 15, 1939.

(f) The "Brix" of reconstituted juice, as applicable, means the degree Brix of the properly reconstituted juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in the Official Methods of Analysis of the Association of Official Agricultural Chemists. The degrees Brix of the reconstituted juice may be determined by any other method which gives equivalent results.

LOT CERTIFICATION TOLERANCES

§ 52.2230 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of concentrated orange juice for manufacturing the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores:

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal

Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2231 *Score sheet for concentrated orange juice for manufacturing.*

Size and kind of container	----
Container mark or identification	----
Label (including reconstitution factor)	----
Liquid measure (fluid ounces)	----
Net weight	----
Brix value of concentrate (corrected for acid)	----
Anhydrous citric acid in concentrate (percent by weight)	----
Brix value to acid ratio	----
Recoverable oil (ml./100 grams)	----
Reconstitutes properly: (Yes) (No)	----

Factors	Score points			
Color	20	(A-Mfg)	17-20	
		(C-Mfg)	[1]14-16	
		(SStd-Mfg)	[1]0-13	
Absence of defects	40	(A-Mfg)	34-40	
		(C-Mfg)	[1]28-33	
		(SStd-Mfg)	[1]0-27	
Flavor	40	(A-Mfg)	34-40	
		C-Mfg)	[1]28-33	
		(SStd-Mfg)	[1]0-27	
Total score	100			
Grade for manufacturing				----

[1] Indicates limiting rule.

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED CONCENTRATED ORANGE JUICE[1]

PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.2251 *Product description.* Canned concentrated orange juice is the concentrated product obtained from sound, mature fruit of the sweet orange group (Citrus sinensis) and Mandarin group (Citrus reticulata), except tangerines. The fruit is prepared by sorting and by washing prior to extraction of the juice; the extracted juice is concentrated; and single strength orange juice extracted from sorted and washed fruit may or may not be admixed to the concentrate. The canned concentrated orange juice is processed in accordance with good commercial practice and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers.

§ 52.2252 *Styles of canned concentrated orange juice*—(a) *Style I, without sweetening ingredient added.* (1) The Brix value of the finished concentrate shall be not less nor more than the following for the respective dilution factor of canned concentrated orange juice:

Dilution factor	Brix value of the finished concentrate	
	Minimum Brix value	Maximum Brix value
	Degrees	*Degrees*
1 plus 1	22.5	24.0
1 plus 2	32.4	34.4
1 plus 3	41.5	44.0
1 plus 4	50.0	53.0
1 plus 5	57.8	61.2
1 plus 6	65.2	68.8

(2) Canned concentrated orange juice of any other dilution factors between "1 plus 1" to less than "1 plus 6," shall result in a Brix (upon reconstitution as prescribed by the processor or as prescribed by the label on the container, if labeled) of not less than 11.7 degrees.

(b) *Style II, with sweetening ingredient added.* (1) The Brix value of the finished concentrate exclusive of added sweetening ingredient and the Brix value of the finished concentrate including added sweetening ingredient shall be not less nor more than the following, as applicable, for the respective dilution factor of canned concentrated orange juice:

Dilution factor	Brix value of the finished concentrate exclusive of added sweetening ingredients	Brix value of the finished concentrate including added sweetening ingredients	
	Minimum Brix value	Minimum Brix value	Maximum Brix value
	Degrees	*Degrees*	*Degrees*
1 plus 1	21.6	22.7	26.9
1 plus 2	31.1	32.7	38.4
1 plus 3	40.0	42.0	49.0
1 plus 4	48.1	50.5	58.6
1 plus 5	55.8	58.3	67.5
1 plus 6	63.0	65.8	75.7

(2) Canned concentrated orange juice of any other dilution factors between "1 plus 1" to less than "1 plus 6" shall have had a Brix exclusive of any added sweetening ingredient (upon reconstitution as prescribed by the processor or as prescribed by the label on the container, if labeled) of not less than 11.3 degrees; and the finished canned concentrated orange juice shall result in a Brix including any added sweetening ingredient (upon reconstitution as prescribed by the processor or as prescribed by the label on the container, if labeled) of not less than 11.9 degrees nor more than 14.2 degrees.

§ 52.2253 *Grades of canned concentrated orange juice.* (a) "U. S. Grade A" or "U. S. Fancy" is the quality of canned concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses an appearance reasonably characteristic of fresh orange juice; possesses a good color; is practically free from defects; possesses a good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this section.

(b) "U. S. Grade C" or "U. S. Standard" is the quality of canned concentrated orange juice which reconstitutes properly and of which the reconstituted juice possesses a fairly good color; is fairly free from defects; possesses a fairly good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this section.

(c) "Substandard" is the quality of canned concentrated orange juice that fails to meet the requirements of U. S. Grade C or U. S. Standard.

FILL OF CONTAINER

§ 52.2254 *Recommended fill of container.* The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled with concentrated orange juice as full as practicable without impairment of quality.

FACTORS OF QUALITY

§ 52.2255 *Ascertaining the grade.* The grade of canned concentrated orange juice is ascertained by considering, in conjunction with the requirements of the respective grade, the respective ratings for the factors of color, absence of defects, and flavor. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	*Points*
Color	20
Absence of defects	40
Flavor	40
Total score	100

§ 52.2256 *Ascertaining the rating for the factors which are scored.* The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive (for example, "17 to 20 points" means 17, 18, 19, or 20 points).

§ 52.2257 *Color*—(a) *(A) classification.* Canned concentrated orange juice of which the reconstituted juice possesses a good color may be given a score of 17 to 20 points. "Good color" means that the color is a good yellow to yellow-orange color typical of properly processed orange juice and is free from browning due to scorching, oxidation, caramelization, or other causes.

(b) *(C) classification.* If the reconstituted juice possesses a fairly good color, a score of 14 to 16 points may be given. Canned concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good color" means that the orange juice may be slightly amber or very light in color and may show evidence of slight browning, but is not off-color.

(c) *(SStd) classification.* Canned concentrated orange juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 13 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2258 *Absence of defects*—(a) *General.* The factor of absence of defects refers to the degree of freedom from seeds and portions thereof, from excessive juice cells, from pulp, from recoverable oil, and from other defects.

(1) "Pulp" means particles of membrane, core and peel.

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[1] The requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or with applicable State laws and regulations.

(b) *(A) classification.* Canned concentrated orange juice of which the reconstituted juice is practically free from defects may be given a score of 34 to 40 points. "Practically free from defects" means that there may be present:

(1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not materially affect the appearance or drinking quality of the juice;

(2) Juice cells and pulp that do not materially affect the appearance or drinking quality of the juice; and

(3) Other defects that are not more than slightly objectionable. To score in this classification the canned concentrated orange juice shall contain at least a trace of recoverable oil but not more than 0.0024 milliliter per degree Brix value per 100 grams of the concentrate.

(c) *(C) classification.* If the reconstituted juice is fairly free from defects, a score of 28 to 33 points may be given. Canned concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that there may be present:

(1) Small seeds or portions thereof that are of such size that they could pass through round perforations not exceeding ⅛ inch in diameter, provided such seeds or portions thereof do not seriously affect the appearance or drinking quality of the juice;

(2) Juice cells and pulp that do not seriously affect the appearance or drinking quality of the juice; and

(3) Other defects that are not materially objectionable. To score in this classification the canned concentrated orange juice may contain recoverable oil of not more than 0.003 milliliter per degree Brix value per 100 grams of the concentrate.

(d) *(SStd) classification.* Canned concentrated orange juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 27 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.2259 *Flavor*—(a) *(A) classification.* Canned concentrated orange juice of which the reconstituted juice possesses a good flavor may be given a score of 34 to 40 points. "Good flavor" means that the flavor is a distinct orange juice flavor typical of reconstituted orange juice from properly processed and concentrated orange juice; is free from traces of scorching, caramelization, oxidation, or terpene; and is free from off-flavors of any kind. To score not less than 34 points the canned concentrated orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of the Brix value to acid is not less than 11.5 to 1 nor more than 18 to 1.

(2) *Style II, with sweetening ingredient added.* The ratio of the Brix value to acid is not less than 12 to 1 nor more than 15 to 1.

(b) *(C) classification.* If the reconstituted juice possesses a fairly good flavor, a score of 28 to 33 points may be given. Canned concentrated orange juice that falls into this classification shall not be graded above U. S. Grade C or U. S. Standard, regardless of the total score for the product (this is a limiting rule). "Fairly good flavor" means that the flavor is a normal flavor for reconstituted canned concentrated orange juice and may have a slightly caramelized or slightly oxidized flavor but is free from off-flavors of any kind. To score not less than 28 points canned concentrated orange juice shall meet the following requirements for the respective style:

(1) *Style I, without sweetening ingredient added.* The ratio of Brix value to acid is not less than 9.5 to 1 nor more than 20 to 1.

(2) *Style II, with sweetening ingredient added.* The ratio of Brix value to acid is not less than 10 to 1 nor more than 15 to 1.

(c) *(SStd) classification.* If the canned concentrated orange juice fails to meet the requirements of paragraph (b) of this section, a score of 0 to 27 points may be given. Canned concentrated orange juice that falls into this classification shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND METHODS OF ANALYSES

§ 52.2260 *Explanation of terms and analyses.* (a) "Reconstituted juice" means the product obtained by mixing thoroughly one part by volume of the canned concentrated orange juice with a stated volume of water. For example, a dilution factor of "1 plus 3" means that to 1 part by volume of canned concentrated orange juice 3 parts by volume of water are added to produce a reconstituted juice. Distilled water is used in reconstituting the product for testing flavor.

(b) "Reconstitution as declared" means any defined reconstitution, such as in labeling: for example, "6 fluid ounces—makes 1 quart" means a "1 plus 4.33" concentrate.

(c) "Reconstitutes properly" means that the reconstituted juice shows no material separation of colloidal or suspended matter after standing four (4) hours at a temperature of not less than 68 degrees Fahrenheit in a clear glass tube or cylinder (such as a 50 ml. graduated cylinder).

(d) "Acid" means the percent by weight of acid (calculated as anhydrous citric acid) in canned concentrated orange juice and is determined by titration with standard sodium hydroxide solution using phenolphthalein as indicator.

(e) "Brix value" of the concentrate is the refractometricsucrose value determined in accordance with the International Scale of Refractive Indices of Sucrose Solutions and to which the applicable correction for acid is added. (See Table I for corrections.)

TABLE I—CORRECTIONS FOR OBTAINING BRIX VALUE [1]

Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value	Citric acid, anhydrous (percent by weight)	Correction to be added to refractometer sucrose value to obtain degree Brix value
2.0	0.39	3.6	0.70
2.2	.43	3.8	.74
2.4	.47	4.0	.78
2.6	.51	4.2	.81
2.8	.54	4.4	.85
3.0	.58	4.6	.89
3.2	.62	4.8	.93
3.4	.66	5.0	.97

[1] Source: "Refractometric Determination of Soluble Solids in Citrus Juices," by J. W. Stevens and W. E. Baier, from the Analytical Edition of Industrial and Engineering Chemistry, vol. II, p. 447, Aug. 15, 1939.

(f) The "Brix" of reconstituted juice, as applicable, means the degrees Brix of the properly reconstituted juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If used in testing juice at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in the Official Methods of Analysis of the Association of Official Agricultural Chemists. The degrees Brix of the reconstituted juice may be determined by any other method which gives equivalent results.

(g) "Recoverable oil" is determined by the following method:

(1) *Equipment.* Oil separatory trap similar to either of those illustrated in Figure 1[2] or Figure 2.[2]

Gas burner or hotplate.
Ringstand and clamps.
Rubber tubing.
3-liter narrow-neck flask.

(2) *Procedure.* (i) Exactly 400 grams of the concentrate mixed with water to approximately two liters are placed in a 3-liter flask. Close the stopcock, place distilled water in the graduated tube, run cold water through the condenser from the bottom to top, and bring the solution to a boil. Boiling is continued for one hour at the rate of approximately 50 drops per minute.

(ii) By means of the stopcock, lower the oil into the graduated portion of the separatory trap, remove the trap from the flask, allow it to cool, and record the amount of oil recovered.

(iii) The number of milliliters of oil recovered divided by 4 equals the volume of recoverable oil per 100 grams of concentrate. To determine compliance with minimum or maximum allowances, as applicable, for recoverable oil, the volume of recoverable oil per 100 grams of concentrate divided by the Brix value of the concentrate equals the volume of recoverable oil per degree Brix value per 100 grams of concentrate.

LOT CERTIFICATION TOLERANCES

§ 52.2261 *Tolerances for certification of officially drawn samples.* (a) When certifying samples that have been officially drawn and which represent a specific lot of canned concentrated orange juice the grade for such lot will be determined by averaging the total scores of the containers comprising the sample, if, with respect to those factors which are scored:

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[2] Filed as part of original document.

(1) Not more than one-sixth of the containers fails to meet the grade indicated by the average of such total scores;

(2) None of the containers falls more than 4 points below the minimum score for the grade indicated by the average of such total scores;

(3) None of the containers falls more than one grade below the grade indicated by the average of such total scores;

(4) The average score of all containers for any factor subject to a limiting rule is within the score range of that factor for the grade indicated by the average of the total scores of the containers comprising the sample; and

(5) All containers comprising the sample meet all applicable standards of quality promulgated under the Federal Food, Drug, and Cosmetic Act and in effect at the time of the aforesaid certification.

SCORE SHEET

§ 52.2262 *Score sheet for canned concentrated orange juice.*

Size and kind of container	----
Container mark or identification	----
Label (including dilution factor)	----
Liquid measure (fluid ounces)	----
Net weight	----
Brix value of concentrate (corrected for acid)	----
Style ( ) I; ( ) II	----
Anhydrous citric acid in concentrate (percent by weight)	----
Brix value to acid ratio	----
Recoverable oil (ml./100 grams)	----
Reconstitutes properly: (Yes) (No)	----
Appearance—reasonably characteristic of fresh juice: (Yes) (No)	----

Factors	Score points			
Color	20	(A)	17-20	
		(C)	[1]14-16	
		(SStd)	[1]0-13	
Absence of defects	40	(A)	34-40	
		(C)	[1]28-33	
		(SStd)	[1]0-27	
Flavor	40	(A)	34-40	
		(C)	[1]28-33	
		(SStd)	[1]0-27	
Total score	100			
Grade				----

[1] Indicates limiting rule.

[F. R. Doc. 53-10288; Filed, Dec. 8, 1953; 8:49 a. m.]

Chapter IV—Federal Crop Insurance Corporation, Department of Agriculture

PART 420—MULTIPLE CROP INSURANCE

SUBPART—REGULATIONS FOR THE 1950 AND SUCCEEDING CROP YEARS

DISCONTINUANCE OF PUBLICATION OF RIDERS

The publication in the Code of Federal Regulations of multiple crop insurance riders for the counties designated below is hereby discontinued due to the fact that multiple crop insurance is no longer offered in these counties:

Section 420.51-1 Butler County, Alabama (15 F. R. 2622; 16 F. R. 4829; 17 F. R. 3265).

Section 420.51-2 Henry County, Alabama (16 F. R. 4831; 17 F. R. 3266).

Section 420.51-3 Blount County, Alabama (17 F. R. 3267).

Section 420.53-2 White County, Arkansas (16 F. R. 4833, 12114, 12765).

Section 420.58-1 Jefferson County, Florida (16 F. R. 4834; 17 F. R. 3268).

Section 420.59-2 Jenkins County, Georgia (15 F. R. 2627; 16 F. R. 4837; 17 F. R. 3270).

Section 420.59-3 Emanuel County, Georgia (15 F. R. 2628; 16 F. R. 4838; 17 F. R. 3271).

Section 420.59-5 Mitchell County, Georgia (16 F. R. 4840; 17 F. R. 3272).

Section 420.59-6 Sumter County, Georgia (16 F. R. 4841, 12123).

Section 420.62-2 Spencer County, Indiana (15 F. R. 2632, 9282; 16 F. R. 12128; 17 F. R. 11270).

Section 420.66-3 Acadia Parish, Louisiana (16 F. R. 4854; 17 F. R. 3284).

Section 420.68-1 Talbot County, Maryland (14 F. R. 7329; 15 F. R. 9290; 16 F. R. 12139).

Section 420.72-1 Panola County, Mississippi (15 F. R. 2650; 16 F. R. 4863; 17 F. R. 3294).

Section 420.72-2 Alcorn County, Mississippi (16 F. R. 4865; 17 F. R. 3295).

Section 420.81-1 Perquimans County, North Carolina (15 F. R. 2651; 16 F. R. 4867; 17 F. R. 3297, 3671).

(Secs. 506, 516, 52 Stat. 73, as amended, 77, as amended; 7 U. S. C. 1506, 1516)

[SEAL] C. S. LAIDLAW,
Manager,
Federal Crop Insurance Corporation.

[F. R. Doc. 53-10263; Filed, Dec. 8, 1953; 8:48 a. m.]

Chapter IX—Production and Marketing Administration (Marketing Agreements and Orders), Department of Agriculture

PART 914—NAVEL ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

EXPENSES AND FIXING OF RATE OF ASSESSMENT FOR 1953-54 FISCAL YEAR

On November 13, 1953, notice of proposed rule making was published in the FEDERAL REGISTER (18 F. R. 7195) regarding the expenses and rate of assessment for the 1953-54 fiscal year under Marketing Agreement No. 117, and Order No. 14 (18 F. R. 5638) regulating the handling of navel oranges grown in Arizona and designated part of California, effective September 22, 1953, under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.). After consideration of all relevant matters presented, including the proposals set forth in the aforesaid notice which were submitted by the Navel Orange Administrative Committee (established pursuant to the marketing agreement and order), it is hereby found and determined that:

§ 914.201 *Expenses and rate of assessment for the 1953-54 fiscal year.* (a) The expenses necessary to be incurred by the Navel Orange Administrative Committee, established pursuant to the provisions of the aforesaid marketing agreement and order, for its maintenance and functioning during the period October 1, 1953, through October 31, 1954, will amount to $151,937.50; and the rate of assessment to be paid by each handler who first handles oranges shall be one and one-quarter cents ($0.0125) per box of oranges handled by such handler as the first handler thereof during the 1953-54 fiscal year. Such rate of assessment is hereby fixed as each such handler's pro rata share of the aforesaid expenses.

It is hereby further found that it is impracticable and contrary to the public interest to postpone the effective time of this section until 30 days after publication in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) in that (1) in accordance with the provisions of said marketing agreement and order, the rate of assessment is applicable to all fresh oranges handled during the aforesaid fiscal year; (2) shipments of Navel oranges are now being made; (3) the provisions of this section do not impose any obligation on a handler until such handler handles Navel oranges; and (4) it is essential that the specification of the assessment rate be issued immediately so that the aforesaid assessments may be collected and thereby enable the Navel Orange Administrative Committee to perform its duties and functions in accordance with said marketing agreement and order.

As used in this section, "handle," "handler," "oranges," "fiscal year" and "box" shall have the same meaning as is given to each such term in said marketing agreement and order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c)

Done at Washington, D. C., this 4th day of December 1953.

[SEAL] TRUE D. MORSE,
Acting Secretary of Agriculture.

[F. R. Doc. 53-10264; Filed, Dec. 8, 1953; 8:48 a. m.]

TITLE 14—CIVIL AVIATION

Chapter I—Civil Aeronautics Board

Subchapter B—Economic Regulations

[Reg. No. ER-193]

PART 298—CLASSIFICATION AND EXEMPTION OF AIR TAXI OPERATORS

ELIMINATION OF PROHIBITION AGAINST USING WORDS "AIRWAYS", "AIRLINES" OR "AIRLINE" IN NAMES

Adopted by the Civil Aeronautics Board at its office in Washington, D. C., on the 3d day of December 1953.

At the present time § 298.2 (a) (3) of the Economic Regulations prohibits air taxi operators, in the absence of special approval by the Board, from using business names containing the words "airline", "airlines" or "airways", or indicating by name or otherwise that they are "airline", "airlines" or "airways". This section was adopted by the Board in order to give the public some means of distinguishing between the typical airline services offered by carriers holding certificates of public convenience and necessity, and those offered by air taxi operators conducted pursuant to the blanket exemption of Title IV of the Civil Aeronautics Act contained in Part 298. It was thought that the size of the aircraft used by the carriers would not in itself be a sufficient distinction, since certain of the local-service operators and other certificated air carriers utilized small aircraft at the time the air taxi operator regulation was promulgated. Although Part 298 has been in effect now for twenty months, the Board has received no complaints which indicate that members of the traveling public are confusing the services offered by air taxi operators with those offered by certificated air carriers. This is true despite the fact that a substantial number of air taxi operators are currently using such names in their operations. As a result, the further prohibition against the use of such names by the air taxi operators does not appear to be justified.

Accordingly, it is the purpose of this amendment to eliminate the current requirement contained in § 298.2 (a) (3) of the Board's Economic Regulations.

Interested persons have been afforded an opportunity to participate in the making of this rule, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board finds that, except to the extent provided in Part 298 as hereby amended, the enforcement of the provisions of Title IV of the Civil Aeronautics Act of 1938, as amended, and the rules and regulations issued thereunder is, or would be, an undue burden on air taxi operators, by reason of the limited extent of or unusual circumstances affecting the operations of such class of air carriers and is not in the public interest. Since the effect of this amendment is to relieve air taxi operators from an existing restriction, it may be made effective immediately. Accordingly, the Civil Aeronautics Board hereby amends Part 298 of the Economic Regulations (14 CFR Part 298) effective December 3, 1953, as follows:

By striking subparagraph (3) of § 298.2 (a).

(Sec. 205; 52 Stat. 984; 49 U. S. C. 425. Interpret or apply sec. 416; 52 Stat. 1004; 49 U. S. C. 496)

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

[F. R. Doc. 53-10266; Filed, Dec. 8, 1953; 8:48 a. m.]

Chapter II—Civil Aeronautics Administration, Department of Commerce

[Amdt. 51]

PART 609—STANDARD INSTRUMENT APPROACH PROCEDURES

ALTERATIONS

The standard instrument approach procedure alterations appearing hereinafter are adopted to become effective when indicated in order to promote safety of the flying public. Compliance with the notice, procedures, and effective date provisions of section 4 of the Administrative Procedure Act would be impracticable and contrary to the public interest, and therefore is not required.

Part 609 is amended as follows:

1. The low frequency range procedures prescribed in § 609.6 are amended to read in part:

LFR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.

If an LFR instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
	2	3	4	5	6	7	8	9	10	11
BAKERSFIELD, CALIF. Kern County No. 1, 515′ SBMRAZ-VDT BFL Procedure No. 1 November 18, 1953	Famosa FM (final)	141—11	1, 600	West side NW course: 321 outbound. 141 inbound. 2,000′ within 25 miles.	1, 600	141—2	T-dn C-dn A-dn	200-1 700-2 800-2	300-1 700-2 800-2	Within 2 miles turn right (west) and climb to 3,000′ on NW course within 25 miles. Alternate missed approach: When directed by ATC, climb to 2,000′ on the SW course within 15 miles. CAUTION: numerous unlighted TV receiving antennae in approach areas to runways. 25-30-34 Deviation from standard criteria authorized in item 5.
DAYTON, OHIO Dayton Airport, 1,008′ SBMLZ-VDT DAY Procedure No. 1 November 18, 1953	Verona FM (final)	090—10	1, 700	S side W course: 270° outbound. 090° inbound. 2,200′ within 10 miles.	1, 700	090—3. 2	T-dn C-dn S-dn 9 A-dn	300-1 500-1 500-1 800-2	300-1 500-1½ 500-1 800-2	Within 3.2 miles, climb to 2,100′ on N course.

LFR Standard Instrument Approach Procedure—Continued

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
GREAT FALLS, MONT. Municipal Airport, 3,671′ SBRAZ-VDT GTF Procedure No. 1 November 17, 1953	Cascade FM (final) Belt FM	023—19.0 270—22.0	*5, 500 5, 500	S side of course: 203 outbound. 023 inbound. 5,500′ within 10 miles. 15, 20 and 25 NA due to high terrain.	4, 200	015—1. 6	T-dn C-d C-n S-dn Rwy 2 A-dn	300-1 500-1 500-1½ 500-1 800-2	300-1 300-1½ 500-1½ 500-1½ 800-2	Within 1.6 miles, climb to 5,500′ on N course within 25 miles of GTF or as directed by ATC. Alternate missed approach: When directed by ATC, execute climbing left turn, climb to 5,500′ on NW course within 25 miles of GTF LFR. *When cascade FM used as final approach marker descent authorized to 4,200′ when within 10 mile of GTF LFR. CAUTION: 3,850′ terrain 15 miles SW of airport. 4.500′ terrain 6 miles NE of cascade FM. 3,781′ tank just S of airport. LFR towers 3,840′.
OAKLAND, CALIF. Municipal, 5′ SBRAZ-VDTX OAK Procedure No. 1 December 1, 1953	Baypoint FM Evergreen FM/H Newark FM/H *Mt. Eden Int. (final)	200—24 304—37 304—16 304—8 (to rng sta.)	3, 000 3, 500 1, 800 500	S side SE course: 124 outbound. 304 inbound. 1,500′ within 10 miles. Beyond 10 miles NA due to traffic conflictions. All descents and maneuvering beyond 10 miles must be done in accordance with Newark holding pattern procedure.	*Mt. Eden Int. 1, 000	*Mt. Eden Int. 304—7	T-dn C-dn S-dn Rwy 27 L/R A-dn	300-1 500-1 500-1 800-2	300-1 600-1½ 500-1 800-2	Over OAK LFR climb to 2,000′ on NW course of OAK LFR within 15 miles (Richmond Int.). All maneuvering W of course. Missed or aborted approaches must cross OAK LFR at not above 1,500′. *Mt. Eden Int. defined as Int. SE course OAK LFR and bearing 047° mag. to Hayward rbn. (Hwd 242 kc). If Mt. Eden Int. not received descent below 1,000′ NA and 1,000′ landing minimums apply. CAUTION: High terrain (Mt. Diablo 3,925′ msl) 7 miles SE of NE course, 17 miles from OAK LFR. Also, high terrain paralleling SE course on NE side. Deviation from standard criteria authorized on terrain clearance for final approach in item 6, and in missed approach altitude.
PITTSBURGH, PA. Allegheny County Airport, 1, 252′ SBRAZ-DTV PIT Procedure No. 1 Effective upon Realignment of SW course PIT radio range	Int SW course PIT and NW course MGW.	48—29	2, 500	S side of SW course: 228 outbound. 048 inbound 2,500′ within 10 miles.	2, 000	85—2. 3	T-dn C-dn A-dn	300-1 500-1 800-2	300-1 500-1½ 800-2	Within 2.3 miles, climb to 3,000′ on SE course within 25 miles.
ST. LOUIS, MO. Lambert Field, 552′ SBRAZ-DTXV Procedure No. 1 December 15, 1953	STL VOR Lake "H" facility Spanish Lake FM (final)	123—11. 0 060—7. 6 249—8. 0	1, 800 1, 800 1, 300	N side east course: 069 outbound. 249 inbound. 1,800′ within 25 miles.	1, 300	255—2. 0	T-dn C-dn S-dn 24 A-dn	300-1 500-1 500-1 800-2	300-1 500-1½ 500-1 800-2	Within 2.0 miles climb to 2,000′ on w leg within miles.
THE DALLES, OREG. The Dalles Municipal, 243′ SBRAZ-VDT Procedure No. 1 November 16, 1953	Int. 165° course DLS VOR and E course DLS LFR (final).	255—11. 0	2, 740	S side E course: 075 outbound. 255 inbound. 4,000′ within 25 miles. Procedure: Turn S for more favorable terrain.	2, 740	246-3. 1	T-d T-n C-d C-n A-d A-n	1, 500-1 1, 500-2 2, 500-3 2, 500-3 2, 500-3 2, 500-3	1, 500-1 NA 2, 500-3 NA 2, 500-3 NA	Within 3.1 miles execute immediate left turn, climb to 4,000′ on E course within 15 miles of L/F range. All turns on S side.

2. The automatic direction finding procedures prescribed in § 609.9 are amended to read in part:

ADF STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.

If an ADF instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
BRUNSWICK, MAINE Municipal Airport, 77′ MHW BUW Procedure No. 1 August 14, 1950	(PROCEDURE CANCELED EFFECTIVE NOVEMBER 30, 1953)									
DAYTON, OHIO Dayton Airport, 1,007′ LOM DA Procedure No. 1 July 12, 1951	(PROCEDURE CANCELED EFFECTIVE DECEMBER 16, 1953)									
MHW (Tipp City Rbn) TPC Procedure No. 2 December 10, 1951	(PROCEDURE CANCELED EFFECTIVE DECEMBER 16, 1953)									
DOVER, DEL. Dover AFB DOV 206 kc Procedure No. 1 June 6, 1952	(PROCEDURE CANCELED EFFECTIVE NOVEMBER 19, 1953)									
HUNTINGTON, W. VA. Huntington Airport, 560′ BH HTW Procedure No. 1 Effective upon conversion from range to BH facility.	--------------------	---------	---------	S side of course: 255 outbound. 075 inbound. 2,100′ within 10 miles.	1,600	075—2.3	T-d T-n C-d C-n A-d A-n	1,000-1 NA 1,000-2 NA 1,500-3 NA	1,000-1 NA 1,000-2 NA 1,500-3 NA	Within 2.3 miles, climb to 2,500′ on a course 075 within 10 miles, return to HTW BH.
Tri-State Airport, 827′ BH 236 kcs HTW Procedure No. 1 Effective upon conversion of HTW range to BH facility	--------------------	---------	---------	W side of course: 197 inbound. 017 outbound. 2,000′ within 10 miles.	1,500	197—2.9	T-dn C-dn A-dn	300-1 600-1 800-2	300-1 700-1½ 800-2	Within 2.9 miles, climb to 2,500′ on a course 197° within 10 miles, return to HTW BH.
ST. LOUIS, MO. Lambert Field, 522′ "H" facility LAQ Procedure No. 2 November 20, 1953	St. Louis LFR St. Louis VOR Int. W course STL LFR and NE course ILS. St. Peters fan marker Maryland Int Int. S course, STL LFR and 330° bearing, Lake "H" Facility.	240—7.5 165—10.0 238—7.0 119—9.0 058—3.2 Final 330—17.0	2,000 2,000 2,000 2,000 1,500 2,100	S side SW course: 238 outbound. 058 inbound. 2,000′ within 25 miles.	1,500	058—4.4	T-dn C-dn S-dn 6 A-dn	300-1 500-1 500-1 1,000-2 BCOB	300-1 500-1½ 500-1 1,000-2 BCOB	4.4 miles climb 1,800′ course of 058° within 25 miles Lake "H" facility, or when directed by ATC climb to 2,100′ SE course STL LFR within 25 miles.

3. The instrument landing system procedures prescribed in § 609.11 are amended to read in part:

ILS Standard Instrument Approach Procedure

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.

If an ILS instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below:

City and State; airport name, elevation; Facility: Class and identification; procedure No.; effective date	Transition to ILS				Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope interception inbound (ft.)	Altitude of glide slope and distance to approach end of runway at—		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
	From—	To—	Course and distance	Minimum altitudes (ft.)			Outer marker	Middle marker	Condition	Type aircraft		
										75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11	12	13
BAKERSFIELD, CALIF. Kern County No. 1, 515′ ILS BFL Procedure No. 1 November 18, 1953	BFL LFR	SE course ILS	141—1.5	2,000	S side SE course: 119 outbound. 299 inbound. 1,820′ within 10 miles of OM. Beyond 10 miles NA. Procedure turn S side for more favorable terrain.	1,820	1,820—4.71	600—0.62	T-dn C-dn S-dn Rwy 30 A-dn	300-1 700-2 400-3/4 800-2	300-1 700-2 400-3/4 800-2	Climb to 3,000′ on NW course BFL LFR within 25 miles or to 2,000′ on track of 319° from BFL VOR. Alternate missed approach: when directed by ATC climb to 2,000′ on SW course of BFL LFR within 15 miles. CAUTION: Numerous unlighted TV receiving antennae in approach areas to runways 25-30-34.
	BFL VOR	SE course ILS	131—4	2,000								
CLEVELAND, OHIO Cleveland Hopkins, 789′ ILS CLE Procedure No. 2 December 1, 1953	Radar transition to ILS NE course to be conducted in accordance with established PPI patterns for Runway 23R.				Not authorized.	Not applicable. Descend to authorized minimums after passing 5 mile fix as determined by surveillance radar.			T-dn C-dn S-dn 23R A-dn	300-1 500-1 500-1 800-2	300-1 500-1½ 500-1 800-2	Within 5 miles after passing radar fix, climb to 2,200′* on SW course ILS within 25 miles. *Or at a higher altitude when requested by ATC. This procedure authorized only in conjunction with airport surveillance radar.
DAYTON, OHIO Dayton Airport, 1,008′ ILS DAY MHW TPC Procedure No. 2 December 16, 1953	Dayton LFR	TPC	071—8.2	2,200	N side NE course: (back course) ILS 955 Outbound. 235 Inbound. 2,200′ within 10 miles.	1,700′ over TPC	No glide path TPC— 4.6		T-dn C-dn S-dn 24 L & R A-dn	300-1 500-1 500-1 800-2	300-1 500-1½ 500-1 800-2	Within 4.6 miles, climb to 2,300′ on SW course ILS or 236° bearing outbound from TPC Rbn within 10 miles or when directed by ATC climb to 2,100′ on N course DAY LFR to W course CMH.
	Dayton VOR	TPC	105—4.6	2,200								
	Wright-Patterson LFR	TPC	347—11.5	2,200								
	Springfield Rbn	TPC	285—19.2	2,300								
	Int 022° course DAY VOR and ILS SW course or 56° bearing.	TPC	056—8.0	2,200								
	Int S course DAY LFR and ILS SW course or 56° bearing.	TPC	056—11.0	2,200								
	Int W course CMH LFR and ILS NE course or 236° bearing (final).	TPC	236—8.0	1,700								
	Int 265° course to DAY VOR and ILS NE course or bearing 236° (final).	TPC	236—3.0	1,700								

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; Facility: Class and identification; procedure No.; effective date	Transition to ILS				Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope interception inbound (ft.)	Altitude of glide slope and distance to approach end of runway at—		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
	From—	To—	Course and distance	Minimum altitudes (ft.)			Outer marker	Middle marker	Condition	Type aircraft: 75 m. p. h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11	12	13
OAKLAND, CALIF. Oakland Muncipal, 5' ILS-OAK Procedure No. 1 December 1, 1953	Newark FMHW	Hayward MHW	339—7	2,590	S side E course: 095° outbound. 275° inbound. 3,500' within 10 miles of HWD MHW.	2,590	HWD-MHW 2,590'—9.4 LOM 1,320'—4.72	230—0.66	T-dn C-dn S-dn 27R A-dn	300-1 500-1 400-3/4 800-2	300-1 600-1½ 400-3/4 800-2	Climb to 2,000' on NW course Oak LFR within, 15 miles or to 2,000' on 310° radial from Oak. VOR within 15 miles (Richmond Int.). All maneuvering W of course. Missed or aborted approaches must cross Oak LFR or VOR at not above 1,500'. *These transitions authorized Day on Top only. #Procedure turn on Oak LFR or VOR transition only. Upon conpletion of procedure turn and transition to localizer course inbound, descent from glide path interception is authorized to cross Hayward MHW at 2,590'. Deviation from standard terrain clearance authorized in missed approach altitude.
	Oak LFR	Hayward MHW	099—11	3,500								
	Oak VOR	Hayward MHW	094—12	3,500								
	Baypoint FM*	Hayward MHW	167—24	6,000								
	Altamont Int.*	Hayward MHW	277—21	5,000								
	SFO LOM	Newark MHW	075—13	4,000								
	SFO LFR	Newark MHW	078—16	4,000								
	SFO VOR	Newark MHW	329—12	3,500								
	Altamont Int	Newark MHW	329—25	5,000								
	NUQ LFR	Newark MHW	342—13	3,500								
WINDSOR LOCKS, CONN. Bradley Field, 173' ILS BDL LOM BD 239 kcs Procedure No. 1 Combination ILS and ADF November 13, 1953	Int NW crs HFD and SW crs ILS	LOM	058—3.5	2,500	S side SW course: 238 outbound. 058 inbound. 2,300' within 10 miles.	ILS 2,300 ADF 1,700 Over LOM	1,650—5.2	415—0.7	T-dn C-dn S-dn 6ILS *ADF A-dn ILS ADF A-dn	300-1 700-1½ 400-¾ 500-1 800-2 1,000-2 BCOB	300-1 700-1½ 400-3/4 500-1 800-2 1,000-2 BCOB	Within 5.2 miles after passing LOM (ADF), climb to 2,500' on NE course ILS or 058° track on LOM. Alternate missed approach procedure when requested by ATC: Make a climbing right turn to LOM at 2,500'. *Deviation from criteria authorized in straight-in landing minimums. Standard clearance not provided over ridge approximately 1 mile N of outer marker. CAUTION: Unlighted hills 2¾ miles NE of airport approximately 768' MSL.
	Int E crs BAF and NE crs ILS	LOM	238—19.0	2,500								
	Int S crs BAF and SW crs ILS	LOM	058—3.5	2,500								

4. The ground controlled approach procedures prescribed in § 609.13 are amended to read in part:

GCA Standard Instrument Approach Procedure

Bearings, headings, and courses are magnet C. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.

If a GCA instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below. Positive identification must be established with the ground controller. From initial contact with GCA to final authorized landing minimums, the instructions of the GCA controller are mandatory except when (A) visual reference with ground is established on final approach at or before descent to the authorized landing minimums, or (B) at pilot's discretion if it appears desirable to discontinue the approach.

City and State; airport name, elevation; effective date	Radar terminal area; maneuvering altitudes by sectors and limiting distances	Ceiling and visibility minimums						Except when the ground controller may direct otherwise prior to final approach, a missed approach procedure shall be executed as provided below when (a) communication on final approach is lost for more than 5 seconds; (b) directed by ground controller; (c) visual reference is not established upon descent to the authorized landing minimums; or (d) landing is not accomplished
		Runway No.	Condition	Precision approach (PAR)		Surveillance approach (ASR)		
				75 m. p. h. or less	More than 75 m. p. h.	75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9
INDIANAPOLIS, IND. Municipal Weir Cook, 796′ Procedure No. 1 December 7, 1953	All bearings are to the radar with sector azimuths progressing clockwise. 120° to 280° 2,300′ within 20 miles. 280° to 120° 2000′ within 20 miles.	4, 9, 13, 18, 27, 31, 36.	S-dn C-dn	------------	------------	400-1 500-1	400-1 500-1½	Runways 4, 9, 13, 18, climb to 2,300′ on E course of Indianapolis LFR within 20 miles of station and proceed to Greenfield intersection or as directed by ATC. Runways 22, 27, 31, 36, climb to 2,300′ on NW course of Indianapolis LFR within 20 miles of station and proceed to Int. of a 50° course from Terre Haute VOR and NW course. Indianapolis LFR, or as directed by ATC. Alternate: Climb to 2,300′ on S course of Indianapolis LFR within 25 miles. *ASR straight-in approach minimums higher on runway 22 because of ground clutter and antenna location.
		22................	*S-dn C-dn	------------	------------	500-1½ 500-1½	500-1½ 500-1½	
		All runways.......	T-dn A-dn	------------	------------	300-1 800-2	300-1 800-2	

5. The very high frequency omnirange procedures prescribed in § 609.15 are amended to read in part:

VOR Standard Instrument Approach Procedure

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.

If a VOR instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (−) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
BAKERSFIELD, CALIF. Kern County No. 1, 515′ BVOR BFL Procedure No. 1 November 18, 1953	Famosa FM (final)..........	139—8	1,600	W side of course: 311 outbound. 131 inbound. 2,000′ within 25 miles.	1,600	131—4.4	T-dn C-dn A-dn	300-1 700-2 800-2	300-1 700-2 800-2	Within 4.4 miles turn R (W) and climb to 2,000′ on outbound course of 319° within 25 miles of BFL VOR. Alternate missed approach: When directed by ATC, climb to 2,000′ on a track of 225° from BFL VOR within 15 miles. Caution: Numerous unlighted TV receiving antennae in approach areas to runways 25-30-34.
BRYCE CANYON, UTAH CAA Site No. 45, 7,586′ BVOR-VDPTJ BCE Procedure No. 1 November 19, 1953	----------------------------	---------	---------	W side of course: 110 outbound. 290 inbound. 11,000′ within 25 miles.	10,100	069—7.7	T-dn C-dn A-dn	1,500-3 2,500-3 2,500-3	1,500-3 2,500-3 2,500-3	Within 7.7 miles climb to 13,000′ on the 045° radial from Bryce Canyon VOR within 25 miles.
HANKSVILLE, UTAH CAA Site 54, 4,480′ BVOR-VDPJ HVE Procedure No. 1 November 19, 1953	----------------------------	---------	---------	South side of course: 90 outbound. 270 inbound. 7,500′ within 25 miles.	5,700	270—0.2	T-dn C-dn A-dn	600-2 1,200-2 1,200-2	600-2 1,200-2 1,200-2	Within 0 miles, climb to 11,000′ on the 050° radial from HVE VOR within 25 miles.

VOR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
MILFORD, UTAH Milford Airport, 5,040′ VORW-MFL Procedure No. 1 November 19, 1953	------------------------------	----------	----------	W side of course: 180 outbound. 360 inbound. 8,000′ within 15 miles. Beyond 15 miles NA.	6,000	345—4.2	T-d T-n C-d C-n S-d Rwy 34 S-n A-dn	300-1 1,000-2 1,000-1 NA 1,000-1 NA NA	300-1 1,000-2 1,000-1½ NA 1,000-1 NA NA	Within 4.2 miles, climb to 9,000′ on the 007° radial from MFL VOR within 25 miles. Emergency procedure only: Weather observations 0530 to 2030 only. No attendant on field 2030 to 0530.

These procedures shall become effective upon publication in the FEDERAL REGISTER.

(Sec. 205, 52 Stat. 984, as amended; 49 U. S. C. 425. Interpret or apply sec. 601, 52 Stat. 1007, as amended; 49 U. S. C. 551)

[SEAL]

F. B. LEE,
Administrator of Civil Aeronautics.

[F. R. Doc. 53-10206; Filed, Dec. 8, 1953; 8:45 a. m.]

[Amdt. 52]

PART 609—STANDARD INSTRUMENT APPROACH PROCEDURES

ALTERATIONS

The standard instrument approach procedure alterations appearing hereinafter are adopted to become effective when indicated in order to promote safety of the flying public. Compliance with the notice, procedures, and effective date provisions of section 4 of the Administrative Procedure Act would be impracticable and contrary to the public interest, and therefore is not required.

Part 609 is amended as follows:

1. The low frequency range procedures prescribed in § 609.6 are amended to read in part:

LOW FREQUENCY RANGE PROCEDURES

When an LFR instrument approach is conducted at the below named airport(s), it shall be in accordance with the following instrument approach procedure(s), unless an approach is conducted in accordance with a different procedure authorized by the Administrator for such airport(s). Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below:

City and State; airport name, elevations; class of facility; frequency; identification; procedure No.	Initial approach to facility			Procedure turn: ( ) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified below, or if landing not accomplished; remarks
	From—	Course and distance	Minimum altitude (ft.)				Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
LANSING, MICH. Capital City Airport, 858′ SBMRAZ-DTV 206 kc, LAN Procedure No. 1 Effective date: October 14, 1953	------------------------------	----------	----------	N side E course: 101 outbound. 281 inbound. 2,900′ within 25 miles.	2,400	280—2.6	T-dn C-dn S-dn 27 A-dn	300-1 800-1 800-1 800-2	300-1 800-1.5 800-1 800-2	Within 2.6 miles, climb to 2,200′ on W course.
WACO, TEX. Waco Airport, 515′ SBRAZ-DTV 385 kc, ACT Procedure No. 1 Effective date: September 21, 1953	Waco VOR..................	158—7.0	1,700	E side S course: 189 outbound. 009 inbound. 1,600′ within 15 miles (NA beyond 15 miles).	*1,400	009—2.6	T-dn C-dn #S-dn 36 A-dn	300-1 500-1 500-1 800-2	300-1 500-1.5 500-1 800-2	Within 2.6 miles, climb to 2,000′ on N course within 25 miles, or as directed by ATC. *390′ clearance over 1,010′ obstruction 4 miles E of course. Maintain procedure turn altitude until within 10 miles of LFR on final. #680′ per minute descent required at 120 mph.

NOTE: Bearings, headings, courses are magnetic. Distances are in statute miles. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation.

LOW FREQUENCY RANGE PROCEDURES—Continued

City and State; airport name, elevations; class of facility; frequency; identification; procedure No.	Initial approach to facility: From—	Initial approach to facility: Course and distance	Initial approach to facility: Minimum altitude (ft.)	Procedure turn: ( ) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance facility to airport	Ceiling and visibility minimums: Condition	Ceiling and visibility minimums: Type aircraft: 75 m. p. h. or less	Ceiling and visibility minimums: Type aircraft: More than 75 m. p. h.	If visual contact not established at authorized landing minimums after passing facility within distance specified below, or if landing not accomplished; remarks
WICHITA, KANS. Wichita AFB Procedure No. 1	(PROCEDURE CANCELED)									

NOTE: Bearings, headings, courses are magnetic. Distances are in statute miles. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation.

2. The automatic direction finding procedures prescribed in § 609.9 are amended to read in part:

AUTOMATIC DIRECTION FINDING PROCEDURES

When an ADF instrument approach is conducted at the below named airport(s), it shall be in accordance with the following instrument approach procedure(s), unless an approach is conducted in accordance with a different procedure authorized by the Administrator for such airport(s). Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below:

City and State; airport name, elevation; class of facility; frequency; identification; procedure No.	Initial approach to facility: From—	Initial approach to facility: Course and distance	Initial approach to facility: Minimum altitude (ft.)	Procedure turn: ( ) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance facility to airport	Ceiling and visibility minimums: Condition	Ceiling and visibility minimums: Type aircraft: 75 m. p. h. or less	Ceiling and visibility minimums: Type aircraft: More than 75 m. p. h.	If visual contact not established at authorized landing minimums after passing facility within distance specified below, or if landing not accomplished; remarks
MEMPHIS, TENN. Memphis Airport, 269' LOM 215 kc, ME Procedure No. 1 (Replaces Procedure No. 2 as published in Flight Information Manual, dated June 1, 1953) Effective date: October 1, 1953	Memphis LFR	292—5.0	1,700	S side course: 266 outbound. 086 inbound. 1,700' within 25 miles.	1,700	086—4.88	T-dn C-dn S-dn 9 A-dn	300-1 500-1.5 500-1 800-2	300-1 500-1.5 500-1 800-2	Within 4.88 miles, climb to 2,000' on course of 086° to NE co [illegible] Memphis LFR.
	Cuba FM	192—18.0	2,000							
TULSA, OKLA. Tulsa Airport, 674' LOM 219 kc, TU Procedure No. 1 Effective date: October 7, 1953.	Int. SE course Tulsa LFR and 250° bearing to LOM	250—9.0	2,200	E side course: 174 outbound. 354 inbound. 2,200' within 25 miles.	2,200	354—6.1	T-dn C-dn S-dn 35R A-dn	300-1 500-1 500-1 1,000-2 (BCOB)	300-1 500-1.5 500-1 1,000-2 (BCOB)	Within 6.1 miles, climb to 2,000' on NE course Tulsa LFR within 25 miles. CAUTION: 1,100' tower located 2.3 miles NW of LOM.
	Verdigris River FM	211—16.0	2,200							
	Tulsa LFR	183—8.0	2,200							
	Tulsa VOR	165—13.0	2,200							
	Red Fork FM	077—10.0	2,200							
	Skiatook FM	140—23.0	2,200							
TULSA, OKLA. MHW (Owasso Rbn) 233 kc, OWS Procedure No. 2 Effective date: October 7, 1953	Verdigris River FM	270—9.0	2,000	W side course: 354 outbound. 174 inbound. 2,000' within 15 miles (NA beyond 15 miles).	1,500	174—6.5	T-dn C-dn S-dn 17L A-dn	300-1 500-1 500-1 1,000-2 (BCOB)	300-1 500-1.5 500-1 1,000-2 (BCOB)	Within 6.5 miles, climb to 2,200' on SW course of Tulsa LFR within 25 miles.
	Tulsa LFR	342—6.0	2,000							
	Red Fork FM	028—17.0	2,200							
	Skiatook FM	107—14.0	2,000							
	Tulsa VOR	030—2.5	2,000							

NOTE. Bearings, headings, courses are magnetic. Distances are in statute miles. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation.

3. The instrument landing system procedures prescribed in § 609.11 are amended to read in part:

INSTRUMENT LANDING SYSTEM PROCEDURES

When an ILS instrument approach is conducted at the below named airport(s), it shall be in accordance with the following instrument approach procedure(s), unless an approach is conducted in accordance with a different procedure authorized by the Administrator for such airport(s). Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below:

City and State; Airport name, elevation; Localizer: Frequency and identification; LMM: Frequency and identification; LOM: Frequency and identification Procedure No.	Transition to ILS				Procedure turn: ( ) side of final approach course (outbound and inbound); altitudes, limiting distances	Minimum altitude at glide slope interception, inbound	Altitude of glide slope and distance to approach end of runway		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished; remarks
	From—	To—	Course and distance	Minimum altitude			At outer marker	At middle marker	Condition	Type of aircraft		
										75 m. p. h. or less	More than 75 m. p. h.	
CHARLESTON, W. VA. Kanawha County Airport, 981′ 110.3 mc, CHW LMM: 227 kc, HW LOM: 245 kc, CH Procedure No. 1 Effective date: October 18, 1953	Int. NE course ILS and 252° bearing Ctoharleston LFR.	LOM	229—12.0	2,500	N side NE course: 049 outbound. 229 inbound. 2,300′ within 5 miles of LOM.	(*)	*1,800-5.04 (Final approach altitude over OM and distance to runway from OM).	*0.63 (Distance to runway from MM).	T-dn C-dn S-dn 23 A-dn	300-1 600-1 500-1 800-2	300-1 600-1.5 500-1 800-2	Climb to 2,500′ proceeding to Charleston LFR; or when directed by ATC, climb to 2,500′ proceeding to Charleston VOR. *This procedure not premised on use of the glide slope.
	Charleston LFR	LOM	091—14.0	2,500								
	Charleston VOR	LOM	058—17.0	2,500								
TAMPA, FLA. Tampa Intn'l Airport, 26′ 110.3 mc, TPA LMM: None LOM: 251 kc, TP Procedure No. 1 Effective Date: August 31, 1953	Int. N course Tampa LFR and N course ILS.	LOM	180—16.0	1,000	W side N course: 360 outbound. 180 inbound. 1,250′ within 5 miles of LOM.	1,220	1,220—4.70	220 0.61	T-dn C-dn S-dn 18 A-dn	300-1 500-1 400-3/4 800-2	300-1 500-1.5 400-3/4 800-2	Turn right to 225°*, climb to 1,500′, intercept and proceed W on 285° course from Tampa LFR within 25 miles; or when directed by ATC, climb to 1,500′ on S course ILS within 25 miles. *CAUTION: Simultaneous approaches at MacDill AFB, 7 miles S.
	Tampa LFR	S crs ILS	336—6.0	1,500								
	Tampa VOR	LOM	053—17.0	1,300								

NOTE: Bearings, headings, courses are magnetic. Distances are in statute miles. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation.

These procedures shall become effective upon publication in the FEDERAL REGISTER.

(Sec. 205, 52 Stat. 984, as amended; 49 U. S. C. 425. Interpret or apply sec. 601, 52 Stat. 1007, as amended; 49 U. S. C. 551)

[SEAL]

F. B. LEE,
Administrator of Civil Aeronautics.

[F. R. Doc. 53-10210; Filed, Dec. 8, 1953; 8:45 a. m.]

TITLE 6—AGRICULTURAL CREDIT

Chapter IV—Production and Marketing Administration and Commodity Credit Corporation, Department of Agriculture

Subchapter B—Export and Diversion Programs

[Amdt. 1]

PART 517—FRUITS AND BERRIES, FRESH

SUBPART—ORANGE AND GRAPEFRUIT EXPORT PAYMENT PROGRAM UMX 135A (FISCAL YEAR 1954)

PRODUCT SPECIFICATIONS

Section 517.424 (b) (1), (2), and (3) is hereby amended to read as follows:

§ 517.424 *Product specifications.*

* * *

(b) *Processed products.* (1) Single-strength orange juice shall meet the requirements of U. S. Grade A as defined in "United States Standards for Grades of Canned Orange Juice," effective July 29, 1949.

(2) Single-strength grapefruit juice shall meet the requirements of U. S. Grade A as defined in "United States Standards for Grades of Canned Grapefruit Juice," effective July 29, 1949.

(3) Blended grapefruit and orange juice shall meet the requirements of U. S. Grade A as defined in "United States Standards for Grades of Canned Blended Grapefruit and Orange Juice," effective July 29, 1949.

(Sec. 32, 49 Stat. 774, as amended; 7 U. S. C. Sup. 612c)

Effective date. This amendment shall become effective at 12:01 a. m., December 9, 1953.

Dated this 4th day of December 1953.

[SEAL] S. R. SMITH,
Authorized Representative of the Secretary of Agriculture.

[F. R. Doc. 53-10252; Filed, Dec. 8, 1953; 8:47 a. m.]

PROPOSED RULE MAKING

DEPARTMENT OF AGRICULTURE

Production and Marketing Administration

[7 CFR Part 925]

[Docket No. AO-226-A3]

MILK IN THE PUGET SOUND, WASHINGTON, MARKETING AREA

NOTICE OF RECOMMENDED DECISION AND OPPORTUNITY TO FILE WRITTEN EXCEPTIONS WITH RESPECT TO PROPOSED AMENDMENTS TO TENTATIVE MARKETING AGREEMENT AND TO THE ORDER, AS AMENDED, REGULATING HANDLING

Pursuant to the rules of practice and procedure, as amended, governing proceedings to formulate marketing agreements and orders (7 CFR Part 900.1 et seq.), notice is hereby given of the filing with the Hearing Clerk of this recommended decision of the Assistant Administrator, Production and Marketing Administration, United States Department of Agriculture, with respect to proposed amendments to the tentative marketing agreement and the order, as amended, regulating the handling of milk in the Puget Sound, Washington, marketing area, to be effective pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.).

Interested parties may file exceptions to this recommended decision with the Hearing Clerk, Room 1353, South Building, United States Department of Agriculture, Washington 25, D. C., not later than the close of business on the 15th day after its publication in the FEDERAL REGISTER.

A public hearing was called by the Production and Marketing Administration, United States Department of Agriculture, following a request of the United Dairymen's Association, and was held August 10–11, 1953. The major issues presented on the record of the hearing and covered by this decision relate to:

1. The application of producer bases and to the rule governing transfers of such bases.

2. Modification of the definition of "handler" to include bargaining cooperatives which do not operate plants.

3. Revision of location adjustments applicable to Class I milk and deliveries of base milk.

4. A proposed expansion of the "marketing area," as defined in the order.

5. Revision of the method of computing the price differential for butterfat in Class I milk.

6. Modification of the provisions under which milk is moved between plants by transfer and diversion.

7. The proposed use of price estimates as the basis of settlement with producers for milk.

8. Revision of the application of the location adjustment on certain Class II milk in District No. 1 of the marketing area.

9. Revision of the method of computing, for classification and pricing purposes, the volume of condensed skim milk, nonfat dry milk solids, or other products condensed from skim milk utilized in Class I milk products.

10. Revision of the definition of "producer-handler."

11. Clarification of the location adjustment on certain Class II milk as to its application to milk used in the manufacture of various types of cheese.

12. Review of the provisions which require payments on "other source milk" used by handlers as Class I milk at a rate equal to the difference between the Class I and Class II prices.

13. Clarification of the provisions under which marketing service deductions are made from payments due producers.

14. Several proposed changes in other provisions for the purpose of clarification and to improve administrative procedures.

A decision, based upon the August 10–11, 1953 hearing, which provided modified conditions under which producer milk might be moved from fluid milk plants or country plants to other fluid milk plants or country plants for manufacturing purposes during the balance of 1953, was issued September 10, 1953. An amendment containing the provision decided upon therein was made effective on October 1. Such decision indicated the propriety of further review of the order provisions covering interplant transfers in light of the conclusions reached on other issues of the hearing. Accordingly, certain revisions of language in the transfer provisions, as discussed below, have been made to insure that, over the longer term, milk may be moved into manufacturing channels in an orderly manner, when it is not needed for Class I milk products.

Findings and conclusions. The following findings and conclusions on the issues decided herein are hereby made upon the basis of the record of the hearing:

(1) The provisions relating to producer bases should be revised as to the number of months during the year bases are applied in distributing to producers the proceeds from the sale of milk; the provisions relating to transfers of base between producers should not be changed.

For six months of the year the total returns realized by producers from the sale of milk in both classifications are distributed to the individual producers by means of a "base and excess" plan of payment. For a certain quantity of milk, computed as the average of his deliveries during the preceding August-December period, the producer receives a "base price" for each month that bases are in effect, and for additional deliveries he receives the "excess price," which usually is equivalent to the Class II price. For other months, when individual producer bases are not used in connection with the distribution of producer returns, each producer receives a single blended, or weighted average, price (adjusted for location and butterfat variation) for all milk delivered. The latter period includes those months of the year (August-December) known as the "open period" when the deliveries made by each producer determine the quantity of milk on which he will be paid the base price for six months during the following year.

Use of the base and excess plan of payment in all months of the year was proposed. In support of this proposal producer proponents contended that the effect of the current provisions is to return to the producer who has even production an increased base price in relation to the Class I price as the flush production season approaches and a decreased price in relation to the Class I price during the short production months. Thus, producers who make the effort necessary to achieve a level production pattern receive, in effect, a "diluted" price for fall production. Proponents argue that the order should assure the producer who has evened out his annual production curve that he will not receive a lower price in relation to the Class I price in the season of historically short production than the price he received for his base milk in the preceding season of flush production. If this is not accomplished a production pattern for the market in close alignment with the relatively even sales pattern of Class I milk will be difficult to attain.

Since the base and excess plan of payment returns to the producer of an even supply the highest possible price provided by the order for a percentage of his milk deliveries greater than that of the uneven producer for the months bases are in effect, proponents contended further that additional incentive to even production will result if such plan of payment is employed throughout the year rather than for a six months' period. It was testified that individual ability on the part of the producer is basic to the attainment of an even production pattern for the market, and that greater progress toward this objective will be made if the returns to the producer who has achieved even production are not materially reduced in the fall months in relation to those of the uneven producer. It was stated that the plan proposed should promote further production adjustments on a seasonal basis without at the same time restricting the total amount of milk produced for the market annually. It was testified that even though he is "on base," a producer who is attempting to level out production will produce as much milk as possible during the base-making months in the fall in order to establish a base which will include the largest possible percentage of any seasonal increase in his production the following spring and summer. In this way the producer insures himself the maximum return for his milk throughout the next year. Under the proposal new producers would be permitted to share in the total market proceeds at the base price for the month in varying amounts up to 80 percent of their deliveries, the highest percentages applying in those months when the market supply of producer milk normally is smallest. Although under such a provision a new producer coming into the market in the fall would receive a somewhat lesser return in relation to those of other producers during his first months of entry, proponents argue that this result is justified to prevent undue gain to such a producer at the expense of the tried producer who has achieved a relatively even production curve. Proponents do not suggest any change in either the method of computing bases or the base-making period (August through December) now specified in the order, except to extend to the additional months the plan would be in effect the schedule of monthly percentages applied to the deliveries of any new producer in computing the amount of his base milk for the particular month.

The base and excess plan of payment was adopted in the original Puget Sound order as a means of inducing additional milk production in the fall and winter relative to spring and summer levels. By providing returns directly related to the ability of the producer to deliver additional milk in the fall and winter as compared with deliveries in the other seasons, a production pattern more nearly fitted to the Class I sales pattern has been encouraged. Further seasonal shifts in deliveries would assist in relieving problems involving the disposition of reserve milk supplies in the flush production months and would provide greater assurance of adequate milk supplies at reasonable price levels in other months.

As previously stated, the present order provides for a "base-making period" of five months out of each year. During this period all producers deliver on precisely the same price terms while establishing bases to be effective in six months of the following year. Since the statute does not bar the application of the base and excess plan of payment in months other than those to which it now applies, the important consideration concerning its extension to the entire year is whether there would be a strong tendency for producers to restrict total market supplies. The plan adopted provides that each producer will continue to make a new "base" each year computed from his deliveries of both base milk and excess milk in the base-making months and, if he chooses, the producer may relinquish his base once during the year and be paid on the same terms as a new producer until revised bases for regular producers become effective on the basis of August-December deliveries. This privilege is accorded to producers under the present order and should be extended to the added months the plan will be in effect. This should enable those producers who so desire to increase the level of their milk deliveries substantially in the fall months. However, a producer who so elects to relinquish base should receive a base, to become effective the following February 1, in the manner of other producers who did not relinquish base. Under these circumstances, and since the total returns to all producers are not being reduced in relation to the returns to be realized from the production of factory milk, it does not appear that undue restriction on deliveries by regular producers should result from application of the plan throughout the year.

In establishing percentages for determining the bases of new producers under a 12-month plan, particular consideration has been given to seasonal levels of deliveries for the market as a whole. The seasonal levels of production in relation to the need for Class I milk indicates that the percentages of new producer deliveries to be priced as base milk should be relatively high in the fall and winter months to encourage the delivery of milk by new producers in such months and to minimize the incentive to enter the market during months when supplies are seasonally large. The following percentages of deliveries for the additional months the plan will be in effect should accomplish this without, at the same time, unduly reducing returns to regular producers: August, 75; September through December, 90; January, 80; and February, 75. The record indicates that the percentages currently established by the order with respect to new producer deliveries for the months of March through July are satisfactory and do not require revision. In view of the foregoing it is concluded that the base and excess plan of payment should be made effective for all months of the year.

Proponents further contended that unnecessary and inequitable hardships sometimes occur from the fact that the order does not permit the producer to transfer an earned base with the sale or lease of the herd to a producer who continues to produce milk on the same farm. It was indicated that the value inherent in the establishment of an even production pattern is lost to the producer who conveys his herd to another producer if the latter is required to begin his operations on the same farm as a new producer. It was contended in support of the proposal that a herd so obtained and kept normally would continue to produce for a period of several months following the transfer in close alignment with the production pattern already established by the transferor.

The proposal presented was discussed by three witnesses appearing on behalf of producer organizations. It appears from the testimony that there is divergence of opinion among producer representatives as to the opportunities to transfer base which should be afforded by the order. One witness indicated that any producer should be permitted to move his base with the herd when the herd moves to another farm, and further that bases should be subject to sale without limitation. Another would limit transfers of bases to those cases in which death or ill health would force the sale of the farm and herd and would not otherwise permit their sale. The principal witness for the jroposal, however, presented the view that on transfer of base the herd should be maintained on the same farm for the proposal, however, presented the proposal) following conveyance, and that it was not proposed that the base should follow the herd off the farm without rather strict limitation. From the latter testimony it appears that the original intent of the proposal was not to permit the unlimited purchase and sale of bases without reference to the disposition of the herd and farm.

A plan which would permit the ready transfer of base with a herd immediately raises the question of what constitutes a "herd." This appears to be an indeterminate factor in the proposal and as such raises serious complications from an administrative viewpoint. The purchase and sale of base as such was not pursued in detail and further comment thereon is not necessary at this time. However, the producer's own ability, as a farm manager, to produce even supplies of milk invariably has been an important underlying consideration to the establishment of base in all areas where base plans have been employed. It has been considered so significant in relation to the other factors involved in milk production that in the past the individual producer in the Pudget Sound area has been required to establish a separate base for each farm operated (§ 925.61

(e)). Any relaxation of the order regarding transfers would run counter to this consideration, and it is not clear in the record why less importance should now be attached to such factor. In view of the divergency of concepts concerning the transfer of bases offered for the record, it is concluded that the present base rules should be left unchanged pending further consideration of the problem by producers.

(2) The definition of "handler" should not be revised to include a cooperative association not operating a fluid milk plant or country plant for purposes other than those described in § 925.15 (b).

A proposal was made at the hearing by producer groups to designate as a handler any bargaining-type cooperative with respect to milk of its members caused to be delivered to fluid milk plants or country plants of proprietary handlers and to require payment by the latter to the cooperative for the class utilization value of such milk. This would establish the cooperative as the medium between the market administrator and the plant operator through which monthly reports of base and excess milk receipts are filed with the market administrator and certain handler obligations to the producer-settlement and administrative assessment funds are paid. The proposal also contained a corollary provision under which any such cooperative would be allowed to reduce a required payment to the producer-settlement fund by any amount by which the proprietary handler defaults in making payment to the cooperative for milk purchased at the class prices. The proposal submitted is similar in principle to one offered for consideration by producer representatives at the original promulgation hearing and at the amendment hearing held in March 1952. Under present order provisions producer-settlement fund payments are made by the proprietary handler to the market administrator and the bargaining cooperative collects from the handler at the base and excess prices for milk marketed in behalf of producers.

Proponents stated in support that the reporting of base and excess quantities of milk under the present system of reporting is unnecessarily cumbersome. The milk of an individual producer frequently is caused to be delivered by a bargaining cooperative to several different plants during the course of the monthly pay period. This requires the coordination of information regarding the individaul producer's deliveries of milk by the cooperative, and an exchange of information regarding such deliveries with the handlers involved before the payment obligations of the latter to the association and to the market administrator can be computed. In order that those handlers who receive milk from certain individual producers during only part of a month may know the extent of their obligation to such producers and also the amount of their net obligation to, or credit from, the producer-settlement fund, it is necessary for the bargaining cooperative marketing milk on behalf of producers to furnish the handler with the base and excess quantities of milk the latter received from each such producer during the month. When a particular producer's milk is sent by his cooperative to more than one plant during the month it is necessary for each handler involved to report to the cooperative the total amount of milk received and, in turn, for the cooperative to compile the total quantity of milk received during the month at all plants from such producer, than to compute his base and excess quantities, and finally to advise each of the handlers concerned of the amounts of base and excess milk for which he must pay the cooperative on behalf of such producer. During any given month the milk of several hundred individual producers may be sent to more than one plant. This exchange of information is necessitated by the fact that a bargaining cooperative which markets milk for its members controls the hauling of such milk and in many instances is the only practical source of information relative to the total monthly deliveries of an individual producer. The problem has been intensified largely by the expansion of the farm tank system of hauling under which the milk of two or more producers may be commingled in a farm tank truck and the handler receiving milk from the truck cannot identify the producer source of the milk delivered to him. It is the contention of proponents that if the bargaining cooperative is designated the first handler of the milk, the above exchange of information can be eliminated with a saving in bookkeeping to the cooperatives and handlers concerned. Under the proposed plan the market administrator would receive information on the base and excess deliveries of such producers from the bargaining cooperative directly, and a report of his total milk receipts and utilization from each handler buying from such a cooperative. The proprietary handler would continue, of course, to report the receipts of base and excess milk from producers not members of a cooperative and to make minimum payments to the latter producers at the base and excess prices.

It is obvious from the present record that the proponent bargaining cooperatives and the handlers to whom they sell have a problem involving an exchange of information regarding the deliveries of base milk and excess milk of a substantial number of producers. The remedy proposed would create, however, certain other problems of more serious proportions. At present each handler (including any cooperative which operates a plant) is responsible for remitting to the market administrator all monies due producers other than his own as the result of the market equalization of producer returns through the producer-settlement fund. If the handler fails to pay the producer-settlement fund he immediately makes his assets subject to enforcement action. Under the proposal each proprietary handler purchasing from a bargaining-type cooperative would be required to pay the cooperative for such milk at the class prices on the basis of its utilization by the handler. On the other hand, the proposal would place responsibility on the cooperative to make payment to the producer-settlement fund only to the extent that it had been able to collect from the handler.

The proposed plan would require the market administrator to look to the bargaining cooperative for payments to the pool on milk marketed through the cooperative. The real incidence of responsibility for payment would remain, however, with the proprietary handler who actually received and utilized the milk. Under these circumstances the market administrator's ability to enforce payments due the producer-settlement fund would be impaired since the plan relieves a proprietory handler from responsibility to the market administrator concerning such payments. For example, any disagreement between a handler and a bargaining cooperative concerning the adequacy of payment to the cooperative could cause a delay in payment to the pool. In other instances the market administrator might determine that a proprietary handler owes money to the pool and such handler would disagree. In the latter situation the market administrator would be forced to rely for payment upon an agreement between the handler and his cooperative supplier that an obligation existed. If in the opinion of the cooperative involved the handler had fulfilled his obligation, the market administrator would have no recourse to enforce a payment he determined is due producers. It should be noted here that monies owed to the producer-settlement fund by a handler buying from a bargaining cooperative under the plan are not monies owing to producers affiliated with such cooperative, but rather represent monies belonging to other producers, including many not affiliated with any of the proponent associations. Action by the market administrator to insure full payment for milk could be rendered difficult if not impossible under the above conditions. Such procedure could open the way for underpayments which could have serious effect upon producer returns and undermine the essential provisions of the order which establish minimum uniform prices to all handlers.

The producer-settlement fund, or "pool", is a sensitive device for distributing the proceeds to farmers for milk produced. It cannot operate to promote the objectives of the order unless equalization payments are made promptly when due. Any failure to so pay monies due the pool represents a serious obstruction to the maintenance of orderly marketing conditions for producers since orderly marketing requires assurance that all producers receive full and prompt payment for their milk. If a condition of uncertainty as to responsibility for pool payments were to exist, the order could not operate effectively to maintain orderly marketing conditions and all producers, including those marketing through the proponent associations, would lose the principal advantages the regulation affords.

Secondarily, the record also discloses certain other administrative complications which would be created. The amount of milk delivered by producers to be accounted for on the basis of inter-handler transfers would be increased substantially. This would necessitate a more complicated set of rules to govern such movements, involving a specific plan for assigning classification according to sources whenever, as frequently happens, a handler receives milk from more than one cooperative (either bargaining or plant operating) and perhaps also from independent producers. The allocation of classified milk to its source may be made either by arbitrary assignment by the market administrator or by proration. Assignment of classification by the market administrator would involve arbitrary choice as to which source would receive credit for the largest amount of milk utilized in Class I. Although this would place a difficult burden upon the market administrator, the proposal offers no guide in this connection. If the proration method of assigning classification is used, the basis for making original assignments would be relatively simple. However, it would follow logically from such a plan that audit adjustment should be prorated also. Such procedure undoubtedly would increase the number of billings necessary to settlement since each handler, including any bargaining cooperative, who furnished any milk to another handler would be involved in settlement of any audit adjustment based on the latter handler's utilization of milk. At present settlement for such adjustments is made directly with the market administrator. Under any plan of allocation, the market administrator would have to adopt a reporting device to advise a bargaining cooperative of the manner in which the milk of its members was used by the proprietary handler in order that the cooperative could ascertain its obligation to the producer-settlement fund with respect to such milk. When a bargaining cooperative causes member milk to be delivered to several proprietary handlers the procedure of advising the cooperative of the use of milk would have to be repeated for each plant. Similarly, reports not now made to the cooperative relative to audit adjustments would be necessary also. It is noted further that proponents state emphatically that the handler operating the plant where milk purchased from such a cooperative is received should continue to be entitled to the shrinkage allowance associated with Class II milk. In the present order, sales between handlers may be made as either Class I milk or Class II milk under a relatively simple system of transfers. There is no necessity under such plan for dividing the transferred quantity into Class I milk and Class II shrinkage in order to determine the obligation of the transferee handler to his supplier. If the modified shrinkage provision were not adopted, however, those handlers who purchase milk through a bargaining cooperative would be denied the shrinkage allowance in Class II milk as compared with those why buy from an operating cooperative or from independent producers since it would not be possible to determine shrinkage for a handler not operating a plant. In combination these complications appear to offset, from the standpoint of the mechanics of an effective and efficiently managed regulation working in the interest of orderly marketing for all producers, the advantages if would bring to the particular cooperatives and handlers affected by the reporting problem submitted.

It is concluded from the above that enforcement procedure would be made unduly complicated in relation to the benefits to be realized. It is concluded also that while the proposal could simplify the reporting procedures for certain coperatives and handlers, the total amount of paper work necessary on a market-wide basis would not be lessened and conceivably might be increased. Therefore, the proposal should not be adopted under present circumstances.

(3) Current provisions for price adjustments, based on the location of the regulated plant, should be revised by (a) designating a new district within the marketing area to be known as "District No. 4" and (b) establishing a location adjustment of 20 cents per hundredweight applicable to the prices of Class I milk and base milk at plants in such district.

At present, District 2 of the marketing area is comprised of Skagit and Whatcom Counties. Producer associations proposed that Skagit County be removed from such district and be established separately as "District No. 4." This redesignation would be made for the purpose of applying a location adjustment for plants located in Skagit County different from that applicable at plants in the remainder of District 2. A 40 cent per hundredweight location adjustment was adopted for District 2 effective December 1, 1952, and no revision of the adjustment is contemplated for Whatcom County. In the new district the adjustment would be reduced to 20 cents per hundredweight. The 40 cent adjustment in effect for District 3 and the 50 cent adjustment for certain locations outside the marketing area would not be revised under the proposal.

Proponents stated that present location adjustments are based on a system of handling and transporting milk under which milk is delivered from farm to country plant in cans and then is weighed, tested, precooled and assembled in large quantities at the plant prior to shipment in "over-the-road" tank trucks to District 1 plants. This method of handling is still dominant in Lewis, Pacific and Whatcom Counties and on the Olympic Peninsula, but regulated plants located in Skagit County are being by-passed by farm hauling routes which now bring milk directly from farms in the latter county to fluid milk plants within District 1. The rapid growth of the farm tank method of transporting milk, which has made possible this extension of direct delivery farm routes from District 1 plants, also has brought about a reduction of approximately 20 cents per hundredweight in the cost of moving milk in substantial amounts from Skagit County farms to Seattle plants. It has become practical, from a cost standpoint, for farm tankers which carry the equivalent of 250–300 cans of milk to deliver milk directly to city plants in Seattle, or to other cities in District 1, from Skagit County farms, and for even smaller loads picked up at the farms to be reloaded directly to larger tank trucks for over-the-road movement, eliminating in many instances the need for country plant handling. It was testified also that the shipment of milk in farm tanks to District 1 directly from farms located in Whatcom County has not proved economical as yet. Although milk is picked up by farm tanks at many Whatcom County farms for delivery to plants within the county, the distance between such county and Seattle still warrants the assembly of sizable loads at country plants to gain the advantage of the lowest possible over-the-road hauling cost.

The marketing of milk received from producers at plants located outside District 1 requires the performance of more costly services than does the marketing of milk received from producers whose farms are in District 1. The purpose of the location adjustments is to reflect the additional costs of these services to the outlying producers as compared to the near-in producers. At the time of the hearing in March 1952, most milk in the outlying districts was received at country plants prior to shipment to District 1. The total value of services performed on milk received from producers in District 2, as shown by the record, was about 63.5 cents per hundredweight, including country plant transportation 28.5 cents; country plant handling 10 cents; and country plant to District 1 plant transportation 25 cents. The cost of performing services on milk received from producers in District 1 was 22.7 cents. The additional cost of performing services on milk received in District 2 was about 40.8 cents per hundredweight (63.5 cents less 22.7 cents), and a location allowance for District 2 was established at 40 cents per hundredweight as a reasonable measure of the cost of the additional services on milk received in District 2. For the same reasons a like allowance was established for District 3.

The present record indicates that the bulk of inspected milk originating in Skagit County is marketed through the producer association in such county. To a large extent the milk shipped from such county for utilization in District 1 is now being transported in farm tank trucks whereas the milk received from farms in cans is being utilized locally within the county. Within District 1, the can delivery system appears to remain dominant. However, a shift in recent months of more than 21 percent of the producers in this district to the farm tank system would indicate some reduction in delivery costs within such district since the last revision of the location adjustments. With the growth of the farm tank system of delivery an active competition for milk supplies has developed between operators of farm tank pick-up routes which extend into Skagit County from District 1 plants and the Skagit County association. Milk is being hauled from Skagit County farms to Seattle on farm tank pick-up routes at a cost to the producer ranging from 37 to 39 cents per hundredweight. The growth of the farm tank system also has reduced the cost of moving milk from farms to the Burlington plant of the Skagit County association so that milk now can be delivered from farms to the plant, reloaded and shipped to Seattle in over-the-road tank trucks at a total cost of approximately 38 cents per hundredweight as compared with the 63.5 cents per hundredweight computed from the record of the hearing held in March 1952 as the then prevailing value of the hauling and handling service to producers in such district. Even on the assumption that the average delivery cost from farm to plant in District 1 has not changed, the difference in the value of services to the producers in Skagit County in marketing their milk and the value of such services to District 1 producers has been reduced from 40.8 cents to an amount ranging from 14.3 to 17 cents per hundredweight depending on the delivery system used.

When milk is moved to District 1 from an outlying district by the farm tank method, without first being received in a plant in the outlying district, the location adjustment fixed by the order for such district does not apply because that particular milk is regarded as a direct shipment to the District 1 plant. If the location adjustment for milk received in a plant in the outlying district is set at a figure substantially higher than the actual cost of moving milk to District 1 from a similar location by the alternative farm tank method, the returns to the producers whose milk is received at the outlying plant are reduced in relation to those of other producers, with farms similarly located, who are on the farm tank delivery system. If continued this condition would cause the producers receiving lower returns to shift to the farm tank system of necessity. The proposed reduction in the location adjustment on the uniform price for base milk in Skagit County from 40 to 20 cents per hundredweight producers reasonably reflects the current costs of moving milk in substantial quantities to District 1 plants from Skagit County as compared with the costs of similar service to District 1 producers and will remove price disadvantage with respect to producer milk received at Skagit County plants as compared with other milk which originates in the county and is moved to District 1 on a direct-shipped basis. Such reduction should be made in order to assure continuance of the service which the presence of plant facilities in such county still affords numerous producers whose milk is used locally. In view of the above, the location adjustment to handlers for milk received in Skagit County plants and disposed of locally as Class I milk also should be reduced from 40 to 20 cents per hundredweight.

(4) The definition of "marketing area" should not be revised.

It was proposed also at the hearing that the counties of Kitsap and Mason (which include the city of Bremerton) and certain adjacent territory on the Olympic Peninsula be included within District No. 1 of the marketing area. Proponents testified in support that (a) such counties do not produce enough milk locally to meet requirements, and economically and geographically are an integral part of the sales area for the milk of those producers shipping to regulated plants, (b) if the populous and rapidly growing Kitsap-Mason area is to have sufficient milk, it must rely on producers and handlers now covered by the order, (c) some of the seasonal reserve of milk produced on the Olympic Peninsula is utilized in regulated plants at the expense of the pool, (d) producers and handlers in such counties should contribute to the maintenance of stable conditions for the entire Puget Sound area by bearing their proportionate share of the seasonal surplus for the entire marketing area, and to the cost of administration of the order, and (e) local processors of milk in Kitsap and Mason Counties have a competitive advantage in such counties over handlers operating out of the present marketing area resulting in the creation of trade barriers for the benefit of local handlers and producers.

The factual circumstances regarding the production and marketing of milk in the Kitsap-Mason area are not substantially different in relation to the entire Puget Sound area than was the case at the time of the hearing in March 1952 (see decision of the Secretary dated November 13, 1952, official notice of which is taken). About 95 percent of the Grade A milk produced on the Kitsap-Mason Peninsula is marketed by a local producer's association which operates fluid milk distribution facilities in Bremerton. Nearly all milk produced in such counties is utilized locally and none is distributed in fluid form to outlets located within the presently defined marketing area or provides an appreciable source of supply for any regulated plant. During most months the local supply is insufficient to meet all the fluid milk requirements of such counties. This deficit at times is substantial, depending largely on the needs of the Navy Yard. The local cooperative association purchases supplemental milk supplies covered by the order from a producer cooperative during some months of the year and in the flush production season disposes of a portion of the seasonal excess of locally produced milk to the same producer group. Monthly prices paid dairy farmers by the local cooperative association have been closely in line with (sometimes equivalent to) the respective Class I prices for District 1 of the marketing area.

In connection with problems of milk distribution reference is made in the record to the fluctuating purchases of fluid milk by the Navy Yard at Bremerton which buys on contract following bids by interested parties. Proponents, however, did not complain of competitive disadvantage as to this sizable outlet for fluid milk. It appears that contracts for such business are held as frequently by regulated handlers as by the local, unregulated distributors. As a practical matter any local distributor, including the local cooperative, who holds the successful bid for such business must purchase from regulated handlers the milk needed to cover such sales in view of the deficit production locally and does not have price advantage over handlers under regulation with respect to this business.

The competitive situation for regulated handlers who distribute fluid milk on the Kitsap-Mason Peninsula does not appear to be substantially different than it was prior to regulation and no hardship to any handler is revealed by the record. No specific example of current competitive disadvantage with local handlers caused by the existence of the order was presented by the proponent company. Proponent's contention appears to be that if the marketing area is not expanded some competitive disadvantage may result in the future. The type of situation presented follows a pattern which may be expected at the edge of any area made subject to regulation. It does not appear that the proposed expansion of the marketing area is necessary to prevent undue hardship on any regulated handler. Also, it was not demonstrated that an orderly market for the producers whose milk is already under the order is dependent upon the inclusion of the Kitsap-Mason Peninsula. The representative of the Kitsap-Mason cooperative testified that the maintenance of orderly marketing conditions for local dairy farmers does not require an order at this time.

The scope of the marketing area is related to the particular problems involved. Since a milk marketing order is a type of regulation requiring specific boundaries for the area to be covered, some competition between regulated handlers and others hardly can be avoided at points outside the regulated area. A regulated handler who distributes outside the regulated area so established incurs voluntarily whatever risks are involved in doing business in competition with persons unregulated. In the absence of compelling reason to extend the marketing area for the purpose of estabishing or maintaining orderly marketing conditions either inside or outside the presently defined marketing area, it is concluded that the counties of Kitsap and Mason and their environs should not be included in the marketing area.

(5) The butterfat differential applicable to Class I milk should be revised.

Producers requested a reduction in the butterfat differential on Class I milk from 1.25 to 1.2 times the price per pound of 92-score butter on the San Francisco market.

The average butterfat test of producer milk delivered from farms continues to exceed the average butterfat test of Class I milk disposed of by handlers even though some reduction in the butterfat differential was made as the result of an amendatory hearing on order provisions held in March 1952. The reduction in the butterfat differential made effective as a result of the March 1952 hearing appears to have encouraged a better balance between the total quantity of butterfat produced and that sold in Class I milk. However, additional encouragement in this direction appears appropriate in view of the amount of butterfat produced in relation to (a) the quantity of solids not fat in producer milk, and (b) the extent of the Class I outlets for butterfat.

Handlers pointed out in opposition that the proposal would increase the Class I price since the actual test of Class I milk customarily has been lower than the "standard test" of 4.0 percent on which the announced Class I price is based and a smaller differential would be subtracted from the Class I price at the 4.0 percent test in arriving at the price at actual test. Using August prices in illustration it may be noted that the August 1953 Class I price for 4.0 percent milk was $5.261 and at actual test (3.861 percent) was $5.145. Under the proposal the August Class I price at test would have been $5.150. The difference between the proposed Class I price and the actual Class I price for such month is 0.5 of a cent per hundredweight (or one one-hundredth of a cent per quart). It is felt that such a change should not be viewed as a significant change in the Class I price level on a market-wide basis.

In view of the foregoing, it is concluded that the proposal should be adopted.

(6) The provisions relating to the diversion of producer milk to nonpool plants should be modified; the provisions under which milk is classified when transferred from fluid milk plants or country plants to other fluid milk plants or country plants should be revised.

The present definition of "producer milk" provides that a handler may divert to a nonpool plant, on his account, any milk purchased from producers. It is provided further that when such milk is diverted it shall be deemed to have been received at the plant from which it was diverted. It was proposed by the cooperative associations testifying at the hearing that producer milk diversions from any fluid milk plant or country plant to any nonpool plant located in a district different from that in which the diverting plant is located be restricted to the milk of those producers whose milk was received at such fluid milk plant or country plant on at least 17 to 20 days during the month of diversion, with the one exception that if such delivery requirements is met in the month of March, diversions might be made without such restriction in the immediately following months of April, May and June.

The evidence indicates that under present order language it is possible for handlers to assign producers to a particular regulated plant and then to divert a portion of, or all, the milk of such producers to a nonpool plant in another district where, by virtue of the location adjustment provisions, a different price level prevails under the order. In the absence of some minimum standard of delivery performance in connection with deliveries from farms to the District 1 plant, milk could be "diverted" which never was intended to be utilized to fulfill District 1 requirements and with respect to which no transportation cost to such district was incurred. For accounting and payment purposes such milk would be regarded as a receipt at a District 1 plant, where no location adjustment is deductible, and the handler would be credited in the pool with having paid producers the full District 1 minimum price, although the milk actually was received and utilized in another district where a lower minimum price obtains. Thus, it would be possible under present language for a handler to draw from the pool sufficient money to pay the producer of such milk a minimum price higher than that applicable under the order for the area where such milk actually was received by the handler.

Provision for the diversion of milk from regulated to unregulated plants without forcing the producers involved to lose their status as producers was adopted in the original order primarily to minimize the hauling necessary to move milk into manufacturing channels when the regulated plant lacked adequate manufacturing facilities to handle reserve milk supplies. Since location adjustments are necessary to reflect reasonable returns to the entire group of producers based on the value of the services required in moving milk to the principal markets covered by the order, diversion on the basis described in the preceding paragraph would jeopardize the proper distribution of such returns. Such adjustments are considered a basic part of the pricing structure for the supply area for the reasons set forth in this and in prior decisions on the Puget Sound order and should not be undermined by improper "diversions" of milk. It is concluded, therefore, that diversions to nonpool plants during any given month should be restricted, when more than one price area is involved, to milk delivered by the producer(s) whose individual shipments of milk have been received at the diverting plant on at least 20 days during such month, except that if this delivery requirement is met for the month of March, no such delivery requirement should be applicable to the producer's milk in the succeeding flush production months of April, May and June. If such requirements are not met, the dairy farmer whose milk is diverted should lose status under the definition of "producer" contained in the order.

In a decision of the Secretary dated September 10, 1953, official notice of which is taken, consideration was given to a revision of the conditions under which milk might be moved between regulated plants for manufacturing use. It was concluded in such decision that certain revisions of the transfer provisions should be made for a temporary period, pending further review in connection with the issues discussed in the present decision. An amendment to the order making such changes operative for the balance of 1953 was made effective October 1, 1953. After further consideration in connection with the other issues decided herein, it is now concluded, for the reasons set forth in the September 10 decision, that such changes will have continuing applicability beyond the end of 1953 and therefore should be re-adopted, with minor changes in language, for an indefinite period.

(7) Uniform prices for base milk and excess milk estimated by the market administrator on or before the 5th day of each month for the preceding month should not be used as the basis for handler payments to producers.

Producers proposed that handlers be required to make settlement with producers for milk on the basis of uniform prices for base and excess milk to be estimated by the market administrator on or before the 5th day of each month for the preceding month. In the event of variance between the estimated prices and the prices subsequently computed from the handlers' monthly reports of receipt and utilization, such variance would be taken into account by an adjustment to the prices computed for the next following month. At present the uniform prices for base and excess milk are computed and announced by the 13th day of each month for the preceding month.

Proponents contended that a hardship is incurred by the producer associations under procedure followed in making collections for milk since they find it necessary (a) to make two separate estimates of base and excess prices in billing customers on the 5th and 20th of the month for milk delivered during the half month immediately preceding such respective dates, and (b) to make a third, or final, billing involving adjustments of the prior billings on the basis of the base and excess prices announced by the market administrator. It was stated that if a price estimate by the market administrator could be used as grounds for settlement the third billing could be eliminated with a resulting saving under such collection procedure.

In adopting a payment plan of this kind it would be necessary, in the interest of establishing a basis for reasonably accurate estimates, to outline in the order the guides, or standards, by which such estimates would be made. The record indicates that to have an adequate basis for estimating the market administrator would need preliminary data concerning milk delivered by producers as base and excess milk and the uses of such milk by handlers. The testimony, however, does not indicate a means by which the market administrator could be supplied with such information without a requirement on handlers to file additional reports preliminary to their regular monthly reports. Proponents stated that the advantages to be gained by the cooperatives under the proposed provisions would not warrant additional handler reporting requirements. It perhaps is noteworthy here that as the result of the hearing held in March 1952, it was concluded in the decision of the Secretary issued November 13, 1952, that the date by which handlers are required to file regular monthly data on receipts and utilization should be set back from the 6th to the 8th day following the end of the month in which the milk was delivered in order to give cooperatives and handlers sufficient time to organize such data, particularly that relating to base and excess milk deliveries, for filing with the market administrator. Although the subject proposal has appeal the incurrence of a preliminary report by handlers would appear infeasible in the circumstances outlined. It is concluded that the proposed provision concerning payments for milk on the basis of price estimates should not be adopted at this time.

(8) The location adjustment applicable to milk utilized for certain Class II milk products in District 1 should not be eliminated with respect to milk received in Thurston County for such uses.

The present order provides for a location adjustment of 25 cents per hundredweight (a) to be charged handlers on milk originating in District 1 of the marketing area and used in specified Class II milk products, principally sweetened condensed milk, ice cream, cottage cheese and aerated cream, and (b) to be distributed to producers on milk delivered to plants in such district over and above deliveries of base milk. It was proposed that the 25 cent adjustment to handlers be eliminated with respect to milk received in Thurston County (District 1) for the designated Class II uses.

The proponent of the elimination of the Class II location adjustment for Thurston County milk is the operator of a manufacturing plant which engages primarily in the processing of milk for ice cream, sweetened condensed milk and butter but is not under order regulation. During the summer months milk is received at such plant from a regulated plant. Such milk customarily is manufactured into ice cream or sweetened condensed milk and in this circumstance the selling handler is accountable to the pool at the Class II price, adjusted by the location differential of 25 cents on Class II milk in District 1. The price which proponent pays the selling handler for the milk is arrived at by negotiation between the two parties. Proponent contends that the selling handler suffers hardship under the location adjustment provision, and that because of other provisions of the order it is not feasible for him to ship his excess supplies to any other manufacturing outlet.

Data in the record relating to the production and disposition of milk originating on farms located in District 1 of the marketing area indicate that in almost every month there is a deficit of production in such district to cover both the Class I utilization and the uses of Class II milk in such district to which the 25 cent location adjustment applies. The movement of substantial quantities of milk from Districts 2 and 3 to District 1 is necessary to fulfill the sum of such requirements even though the total production of milk throughout the milkshed has increased since the location adjustment on Class II milk was adopted in 1952. When milk is shipped into District 1 from plants in other districts for the Class II uses referred to, the handling and transportation charges applicable in connection therewith exceed the said location adjustment of 25 cents. When ungraded milk is purchased from farms within District 1 for such Class II uses, the effective pay prices to farmers usually are higher than the manufacturing price level for Districts 2 and 3 by more than 25 cents per hundredweight. It is to be noted also that the revised provisions adopted by this decision for the transfer of milk between regulated plants, and between regulated and unregulated plants, will facilitate the disposition by handlers of reserve supplies in District 1 to manufacturing outlets, including outlets located in the other districts. It appears from the evidence that this will make it possible for the selling handler referred to above to select from a wider choice of outlets, including some where the milk may be utilized in ways which will exempt it from the location adjustment.

Since District 1 is a deficit producing area the cost of transporting producer milk for the necessary market uses and reserves should be reflected in the relative returns to producers in the respective districts. There was no proposal to change the rate of adjustment now in effect. It is concluded that the location adjustment is reasonable and should not be changed at this time.

(9) The provisions under which the total quantity of milk in each class is computed should be revised.

The present order is silent as to whether nonfat milk solids received by a handler and utilized to fortify skim milk or skim milk drinks in Class I should be computed on the basis of the actual volume of such solids used or on the volume of their fluid skim milk equivalent. By administrative interpretation the actual quantity of nonfat solids added has been the basis of determining volume for classification purposes in connection with such fortified products. Although the record indicates that reconstituted skim milk or milk drinks are not being sold in the marketing area at present, the accounting practice to be followed in the event such items are introduced is related to the problem at hand and the conclusions reached apply equally to the classification of products made from reconstituted skim milk. There appears to be no contention concerning the propriety of classifying both fortified and reconstituted fluid products as Class I milk. The question at issue relates only to the method of computing the volume of skim milk included in such products to which the payment required by § 925.70 (a) (6) applies. It was proposed that the order might be clarified in this respect through revision of the definition of "other source milk." However, it appears more appropriate, from a drafting standpoint, to include more specific language covering the problem in the provisions under which the market administrator is required to compute the total amounts of skim milk and butterfat in each class.

When the butterfat content of any Class I product is increased by the handler above the basic test of 4.0 percent, the added butterfat from producer milk is priced on the basis of the butterfat differential at the same rate as the butterfat represented by the basic butterfat test, but no basis was presented on the hearing record whereby it would be possible or feasible to adjust the Class I price applicable to the skim milk component of a Class I milk product on the basis of a precise determination of its solids-not-fat content. Nevertheless, to provide equal costs per hundredweight to handlers for producer milk in accordance with its use and to prevent jeopardy to producer returns from Class I milk, a price adjustment should be made in the case of sales in such class in the form of products from which part of, or all, the original water has been removed and not replaced.

The record discloses that nonfat dry milk solids utilized to fortify Class I milk products are required to come from Grade A milk and are paid for on the basis of the Class II price if derived from milk covered by the order or at price for manufacturing milk, closely in line with the Class II price, if derived from milk processed at a non-regulated plant. The additional solids utilized increase the value and salability of the end product. In the absence of evidence to the contrary, it must be assumed that the value of each pound of nonfat milk solids utilized by addition to, or as, a Class I product has a value to the handler the same as every other pound contained therein. Neither the form in which, nor the source from which, such solids are obtained alters their value to the handler for this purpose and they may not be distinguished on the basis of cost of production, need for regular supplies, sanitary requirements, seasonality of production, or value to consumers. Since the Class I price provisions are designed to encourage producers to deliver an adequate and dependable supply of milk in all seasons, the returns to producers for one portion of Class I milk should not be reduced below the level of the remaining portion disposed of in such class. The effect of computing the value of the added nonfat solids on actual weight rather than on a skim milk equivalent basis, in a Class I product, is to alter the accounting method for such solids as compared with an equivalent quantity of such solids contained in skim milk in fluid form which is utilized in the same product, in another Class I product, or in Class II milk. The actual weight basis of accounting for the added solids used in fortified skim milk (Class I) has the effect, from a pricing standpoint, of retaining in Class II milk a portion of the producer milk utilized in the production of such Class I product even though it represents the only end use resulting from the producer milk involved. This is equivalent to granting the handler a price reduction with respect to a portion of his Class I milk.

Producer and handler representatives testifying at the hearing recognized the logic of the "skim milk equivalent" basis of accounting in the event nonfat milk solids are used at some future date to produce reconstituted milk or milk drinks as a means of preventing price differences among handlers and to preserve the integrity of Class I pricing. The relative effects of solids used in fortified skim milk and in reconstituted skim milk on handlers' costs and on the total returns to producers from Class I milk are, however, merely effects of degree. There are no distinguishing differences in the end products or as to the necessary supplies of producer milk which substantiate a separate method of accounting for the extra solids used in fortifying a Class I milk product. It is concluded that the relationship between other source milk and producer milk now provided in the order with respect to allocation and classification should be the same regardless of the form in which the milk solids are obtained for use in Class I, i. e., receipts of other source concentrated skim milk products, including condensed skim milk or nonfat dry milk solids, should be considered as equivalent in volume to the skim milk in fluid form which would be required in the production of such products.

(10) The definition of "producer-handler" should not be changed.

A proposal was made to review the definition of producer-handler to determine whether persons in this category should be regulated more completely by the order. It was pointed out in this connection that by permitting a producer-handler to purchase milk from other producer-handlers or from uninspected sources the present order may enable him to gain competitive advantage over regular handlers. It was suggested on the record that consideration might be given to the regulation of producer-handlers in the same manner as other handlers and to include their milk in the pool as producer milk, or, in the alternative, to apply a charge at the difference between the Class I and Class II prices on any milk received and used as Class I milk by the producer-handler other than the sum of his own farm production and any amounts received from regulated plants.

Producer-handlers who do not purchase milk from other producers were granted exemption from the pricing and payment provisions of the original Puget Sound order, and have continued to be exempt. Such persons are required, however, to make reports of their receipts and uses of milk and milk products at frequent intervals as requested by the market administrator. It was concluded in the original decision on the order that full regulation of producer-handlers would not assist materially in achieving the objectives of the regulation.

The present record does not disclose a marketing problem caused by the purchase of "other source milk" by producer-handlers. The testimony indicates that no producer-handler is handling other source milk at the present time. If he purchases and sells milk in the marketing area which has been obtained from uninspected farms, the producer-handler takes the risk of violating applicable health regulations. There appears to be no apparent danger that producer-handlers will expand operations to the disadvantage of regulated handlers on the basis of such milk. If a producer-handler purchases milk from a handler under the order the milk is accounted for to the pool at the Class I price. If he receives milk from another producer-handler for resale he does not increase the total quantity of milk to which exemption has been granted. The latter type of purchase has been only occasional and no instances of competitive disadvantage to handlers resulting therefrom were cited.

To consider a producer-handler as a handler for any month in which he purchases milk from another producer-handler would add administrative complications and increased reporting requirements which do not appear justified by the evidence. To go further at this time and consider producer-handlers as producers with respect to their own farm production of milk also would present administrative problems out of line with any expected benefits to either handlers or other producers supplying the market. It is concluded that any change in the present status of producer-handlers under the regulation should await further developments which indicate that practices on their part are causing disturbance to the orderly marketing of milk by producers generally.

(11) The Class II location adjustment provision should be made more specific concerning its application to milk used in the several varieties of cheese processed from producer milk.

Cheddar cheese is a Class II milk product not subject to the Class II location adjustment for District 1 plants. In view of the manufacture and sale of other types of hard molded cheese made from producer milk it has been necessary for the market administrator to interpret the location adjustment provisions as to its application to milk utilized in several varieties of cheese. The term "cheddar cheese" in such provision has been deemed to include other hard molded cheeses, such as Colby and Monterey Jack, on the basis that they might be described as "cheddar-type." It was proposed at the hearing that such interpretation be reviewed to determine whether the order should be clarified concerning the application of location adjustments to milk utilized in various types of cheese.

The record indicates that no dissatisfaction has occurred with respect to past interpretation of order provisions in this respect and that such interpretation represented the proper basis for application of the adjustments. The primary question at hand is the method to be used, as a matter of clarity, to describe adequately the kinds of hard molded cheese which should be exempt from the location adjustment on Class II milk. It appears that this can be done satisfactorily by stating that the exemption covers all cheeses except the following, to which the location adjustment does apply: "Baker's cheese", "pot cheese", "cottage cheese (including creamed cottage cheese)", "cream cheese", and "neufchatel cheese." Such named cheeses should be subject to the location adjustment even though sold with ingredients added such as shredded vegetables, chives, etc., or under trade names which do not refer to their cheese content. It is concluded that the language adopted will clarify the location adjustment provision and make it possible for the market administrator to determine precisely how much milk made into various cheeses is exempt from the adjustment without the necessity for a broad interpretation of language.

(12) The rate of payment provided by § 925.70 of the order as to "other source milk" classified as Class I milk should be continued without change.

The order now provides (§§ 925.8 and 925.9) for the designation of "fluid milk plants" and "country plants". The purpose of these designations is to indicate the sources of milk which are fully regulated under the order. Sections 925.45 and 925.70 (a) (6) provide for the integration into the regulatory plan of milk other than that which is fully regulated (i. e. "other source milk"). The former section provides for the allocation, in the classification system, of other source milk while the latter section provides for certain payments to be made into the producer-settlement fund on other source milk which is in excess of that allocated to Class II milk.

The provisions for designating the sources of fully regulated milk and the integration into the regulatory plan of other source milk should be continued in the order unchanged.

At the hearing, a review of the experience with the provisions on plant definitions and the payments on other source milk was made. This review was carried out because it seemed desirable to test the operations of these provisions which were incorporated in the order when it was originally formulated in the light of experience gained during the actual operation of the regulatory program in this market.

All of the Grade A milk produced for consumption in fluid form in the State of Washington is subject to uniform state-wide sanitary standards administered by the State government. As a consequence of this uniform code of sanitary requirements, milk produced under the code anywhere in the State of Washington, is eligible from a sanitation standpoint for sale in the Puget Sound marketing area. Although all Grade A milk produced in the State is eligible for sale in the marketing area, the fact is, of course, that all of the milk so produced does not in fact constitute the regular and normal supply of milk for the regulated marketing area. For this reason, it is necessary to develop standards which distinguish that Grade A milk which is in fact the normal and regular supply for the Puget Sound area from that Grade A milk which is not a part of the regular and normal supply, so that regulation by the order may be imposed fully on that milk which is the regular and normal supply for the area while with respect to that milk which is not a part of such supply, the regulation may be applied only to the extent necessary to integrate the other source milk into the regulatory scheme. Since the sanitation standards for Grade A milk are uniform throughout the State, it is not possible to identify the regular and normal supply for this marketing area on the basis of distinctive sanitation requirements.

Neither is the shipment of milk to the marketing area for Class I utilization a practical basis for identifying the milk which should be fully regulated under the order. If any small, incidental, or accidental shipment of milk into the marketing area were to bring all of the milk at the plant from whence such shipment was made under total regulation, great hardship could be caused to the operator of such plant and to the farmers delivering milk to such an operator. Because of the uniformity of health requirements throughout the State, small quantities of milk are, in fact, disposed of in the regulated marketing area as Class I from plants which are not normal or regular sources of supply for the marketing area. Moreover, the operators of the plants from which such shipments arise may not wish to bring their plants under total regulation. There are many situations in which plant operators may find it economical or desirable to make shipments of small quantities of milk to the marketing area and in which it is neither necessary nor desirable in terms of effective regulation to bring the operators of such plants fully under the regulation. For instance, a plant which is associated with a market outside of the Puget Sound area may find it advantageous to ship milk to a plant regulated by the order in order to have such milk converted into manufactured dairy products. It is quite possible, however, through misunderstanding, or from errors of estimating the utilization of milk, for milk which was intended for utilization in Class II products to be assigned a Class I classification. If through such accident or misunderstanding a plant were placed completely under regulation, considerable hardship, unnecessary to effective regulation, might result. For this reason, it is not practical nor desirable to place a plant totally under regulation merely because a small quantity of milk shipped by it to the market finds it way into a Class I utilization.

The Puget Sound order provides for a market-wide pool. Under this pooling plan, handlers whose proportion of utilization in Class I is greater than the market as a whole make payments into an equalization fund and those handlers whose proportion of utilization in Class I is less than the average for the market receive payments out of the equalization fund. This method of payments into and out of the equalization fund is the essential mechanism for providing uniformity of payments to farmers irrespective of the handler to whom they deliver their milk and provision for equalized payments to farmers is necessary to the maintenance of stable and orderly marketing conditions in the Puget Sound area.

Because handlers with less than the market average proportion of milk in Class I may draw payments out of the producer-settlement, or equalization, fund there is an advantage to any plant operator who has less than the market-wide average proportion of milk in Class I to place himself under regulation in order to obtain these payments and, thereby, make it possible for him to pay the uniform price established under the order to his producers. The smaller the plant operator's proportion in Class I, the greater is the advantage of regulation to him. Under these circumstances, plants which are engaged primarily in the manufacture of milk into dairy products, rather than as suppliers of Class I milk to the marketing area, will attempt to place their plants under regulation for the sole purpose of obtaining payments out of the equalization fund. The result of this, however, will be to reduce the returns to those farmers whose milk actually constitutes the regular source of supply of Class I milk for the marketing area.

It is necessary for the reasons stated, therefore, that that milk which in fact constitutes the regular and normal sources of supply for the marketing area be distinguished from other milk which might enter the marketing area. Sections 925.8 and 925.9 of the order are designed to identify the regular and normal sources of supply for the Puget Sound marketing area. These sections provide that regulated plants shall be of two kinds. First is the "fluid milk plant", and it is defined as a plant located within the marketing area from which certain Class I items are disposed of in the marketing area. Second is a "country plant", from which Grade A milk, in specified percentages, is supplied to a fluid milk plant. Under the definition of country plant, any plant no matter where located may bring itself under regulation by performing in the manner required, and any plant may relieve itself of regulation when it no longer operates in a way that brings it within the scope of these two sections of the order. Under these circumstances, the decision as to whether a plant will be fully regulated under the order or will not be subject to regulation is determined by the decision of the plant operator himself.

Since the order provides for the identification of that milk which is subject to total regulation under the order, the possibility remains that some milk (i. e., other source milk) will be disposed of in the marketing area as Class I which is not subject to total regulation. In fact since the effective date of the order, minor quantities of other source milk have been disposed of in each month as Class I milk in the marketing area either by delivery to a regulated plant or by sale by the outside plant operator directly to stores or to other consumption outlets such as hotels, restaurants, or homes. During that period of 1951 when the order was effective, other source milk in Class I averaged in the neighborhood of 175,000 pounds per month. The amount of other source milk used as Class I has declined steadily however, and in the first six months of 1953 it averaged less than 50,000 pounds per month; although in June the figure was over 114,000 pounds. This other source milk was subject to the compensation payments provided for in § 925.70 (a) (6).

The payments on other source milk provided by this section should be continued without change. The provision requires that on all other source milk classified as Class I, a payment shall be made into the equalization fund at a rate equal to the difference between the Class I price and the Class II price. Payments at this rate are necessary to maintain the integrity of the pricing and pooling provisions of the order.

Essentially all of the other source milk utilized as Class I in the marketing area has been of Grade A quality and, therefore, similar in quailty to that regularly disposed of in the marketing area for Class I. It was produced as part of a supply intended primarily to meet the demand for milk for fluid consumption (or the equivalent of Class I milk uses under the order) in some area in the State of Washington other than the area regulated by this order but it was not used for such purposes in the area for which it was produced. It was, instead, milk which became surplus to the needs for milk for fluid disposition in the area for which it was produced. If the plant operator had not found a sale for such milk within the regulated marketing area, it would have been necessary for him to convert the milk into a manufactured milk product. The most likely surplus disposition of this other source milk would have been as butter and nonfat dry milk solids.

Its value, therefore, to the plant operator was a surplus milk value. The Class II price for milk under the Puget Sound order is based on the value of milk when it is converted into butter and nonfat dry milk solids and this is the price which regulated handlers are required to pay for milk when they convert it into these two products. The Class II price, therefore, represents an accurate and fair representation of the value to the receiving plant operator of surplus milk which is disposed of as other source milk for Class I purposes in the marketing area.

If unregulated plant operators were allowed to dispose of surplus milk for Class I purposes in the regulated marketing area without some compensating, or neutralizing provision in the order, it is clear that the disposition of such milk, because of its price advantage relative to fully regulated milk, would displace the fully regulated milk in Class I uses in the marketing area. The plan of Congress, as contemplated under the Agricultural Marketing Agreement Act of 1937, of returning minimum uniform prices to the producers for the regulated marketing area, would be defeated. Moreover, inefficiencies in the marketing of milk would be encouraged, for the regulated market would obtain its Class I milk not from the regular and normal sources of supply for the market but from other sources of supply generated solely as a result of the price advantage created for unregulated milk by the regulation itself. Providing for some method of compensating for, or neutralizing the effect of, the advantage created for unregulated milk therefore is an essential and necessary provision of this order. Since the value for Class I milk in a regulated market is established at the level of the Class I price provided for in the order and since the true value of other source milk when disposed of in the marketing area is the Class II value, a payment computed as the difference between the Class I price and the Class II price will remove the advantage which other source milk would have when disposed of for Class I purposes in the marketing area. For this reason, the present payments required under § 925.70 (a) (6) should be continued unchanged.

Cross-questioning at the hearing raised the question of whether a payment computed as the difference between the Class I price and price actually paid by a handler for other source milk of Grade A quality would not be an adequate means of removing the advantage which inheres in the Class I use of such other source milk. Under the circumstances which prevail in the Puget Sound marketing area, a handler normally would come into possession of this type of other source milk by purchasing it from an unregulated milk plant. The milk which such a handler receives under these circumstances is at a different stage in the marketing process than is the milk which is priced under the order. Order prices apply to milk as received at the first plant from individual farmers. The price paid by a handler for other source milk applies to milk which has already been received at the first plant, weighed, tested, cooled and placed in a transportation conveyance. Obviously, the handler generally will pay more for other source milk under this condition than he would for milk received directly from farmers, for the plant operator who first receives the milk from farmers must necessarily obtain a markup if he is to be recompensed for the services which he has performed on the milk. In some situations, the purchase of other source milk might be made from a plant operated by the same company as the regulated plant. Thus, the transaction would be primarily a matter of bookkeeping within the same company and it would be advantageous to the company if the price for the milk were to be stated as the Class I price. For by this means, all compensatory payments into the equalization fund would be avoided. Even between plants controlled by different companies, the advantage of showing that the price at which the milk was exchanged was at least as high as the Class I price would give great impetus to the effectuation of paper transactions showing a price at least equal to the Class I price while undisclosed payments were made in order to avoid the imposition of the compensatory payments into the equalization fund. Under these circumstances, it would be impractical from an administrative standpoint to provide for a payment the actual amount of which would be within the control of parties to the transaction. It is essential instead that the payment be computed on an objective basis and that it be equal for all handlers for similar transactions. The present method of computing the payments conforms with these requirements and the alternative methods raised in discussion fail to do so.

The evidence in the record also touched upon the possibility of providing for payments based on the difference between the price paid by the first receiver to farmers and the Class I price. It is clearly shown however that this method would be impractical also. The payment plans which are used by unregulated operators include such varying practices as paying uniform prices on a straight utilization basis, paying on a base and excess plan, paying irregular and nonuniform premiums, absorbing transportation charges, and paying on a variety of butterfat and location differentials. This wide variety of payment plans would render impossible an accurate ascertainment of the actual prices paid to farmers by the first receiver. But what is equally as important, as shown above, is that the price actually paid to farmers does not determine the true value of other source milk disposed of in the marketing area. The true value for such milk, irrespective of the price paid for it to farmers, is the Class II value because other source milk disposed of in a marketing area is in fact the surplus of milk produced primarily for sale in an area outside of the regulated marketing area. Hence, although other suggestions for computing the rate of the compensatory charge have administrative and other difficulties inherent in them in the final analysis even if they were administratively feasible, they would not be fully effective in removing the advantage which attaches to other source milk when it is used as Class I milk in the regulated marketing area. Only the difference between the Class I price and the Class II price accurately reflects this advantage and consequently only this rate will be fully effective in dealing with the problem of integrating other source milk (when used as Class I) into the regulatory plan.

It may be noted also that other source milk not of Grade A quality as well as that of Grade A quality is received and handled in a number of plants subject to the regulation. Although from the standpoint of health standards it is not legal to use such milk for Class I uses except under emergency dispensation granted by the applicable health authorities, the possibility remains that this grade of milk may find its way at times into fluid, or Class I, products. If this occurs the same rate of payment should apply to such milk since its value is established by a lack of eligibility on a Grade A standard, for regular use as Class I milk. This characteristic stamps it the equivalent, from a use standpoint, as surplus Grade A milk, and for the same general grounds as are set forth above with respect to the payment applicable to other source milk of Grade A quality, a similar payment should apply.

(13) The marketing service provision should be modified.

Certain language should be added to the provision which deals with the designated marketing services to be performed by the market administrator for producers who are not members of a qualified cooperative asociation performing such services. At present the order provision requires interpretation as to the incidence of responsibility for marketing services in the case of a cooperative which performs some but not all of the specified services. It is concluded that proper application of the statute requires a cooperative association, otherwise qualified, to perfom not a portion, but all, of the specified services in order to qualify under the provision and to make unnecessary the performance of the services by the market administrator on behalf of producer members of such cooperative. The addition of the language adopted should clarify the order in this respect.

(14) Certain revisions of order language should be made for administrative purposes.

The reference to producer shrinkage in § 925.44 (b) (1) of the order should be revised to refer to the portion of such shrinkage which is classified as Class II milk under § 925.41 (b) (4). This will result in more precise language but will not change the administrative application of the present provisions. For similar reasons, a revision of language is appropriate in § 925.70 (a) relating to the computation of the value of milk for each handler. Such provision will be clarified if reference is made to the fact that the computation provided for therein should be made separately for each plant operated by the handler.

In the amendments effective December 1, 1952 a provision was added to divide any "overage" in the handler's plant on a prorata basis between producer milk and other source milk. Prior to that date all overage had been allocated to producer milk and had been charged for at the applicable class price. The amendment eliminated the charge on the portion allocated to other source milk. Section 925.70 (a) (6) provides that if a handler uses other source milk in Class I he must pay the difference between the Class I and Class II prices on the amount so used. In the event any overage is allocated to other source milk and is classified as Class I milk, it is not clear that § 925.70 (a) (6) applies to the overage as well as to any other source milk subject to such provision. The addition of a reference to overage will clarify the application of the provision.

The December 1, 1952, amendments also provided that skim milk or butterfat transferred from a fluid milk plant or country plant located in District 1 or in the counties of Kitsap and Mason to another fluid milk plant or country plant similarly located should be allocated to Class II milk after assigning thereto any other source milk at the latter plant. In view of the necessity in recent months for handlers to make transfers and diversions of producer milk originating in District 1 to plants located in present District 2, it is appropriate to revise the applicable transfer provisions to indicate the classification procedure to be followed in the event of such movements. The necessity for a clarification of language arises because of the fact that at District 1 plants a location adjustment applies to milk used for certain products included in Class II milk whereas no location adjustment is applicable at District 2 plants. When an inter-district transfer is made the use assignment of the milk transferred determines whether the location adjustment should apply. The provision adopted should permit such transfers to take place without penalty to the handlers involved.

The section of the order under which monthly reports of receipts and utilization of milk are required of handlers should be made more specific to affirm the administrative practice of requiring the handler to submit separate reports for each of his plants rather than a combined report for all plants. Proper administration of the order necessitates a breakdown of information on the receipts and uses of milk plant by plant where a handler operates more than one plant covered by the regulation. It is concluded that the language adopted will clarify the reporting provisions.

No objections to these administrative charges were raised at the hearing and it is concluded that the appropriate language changes should be made.

Rulings on briefs. Briefs were filed on behalf of a substantial number of producers and for certain handlers who would be subject to the proposed marketing agreement and to the order, as amended, and as hereby proposed to be further amended. The briefs contained suggested findings of fact, conclusions, and arguments with respect to the proposals discussed at the hearing. Every point covered in the briefs was carefully considered along with evidence in the record in making the findings and reaching the conclusions hereinbefore set forth. To the extent that the suggested findings and conclusions contained in the briefs are inconsistent with the findings and conclusions contained herein, the requests to make such findings or to reach such conclusions are denied on the basis of the facts found and stated in connection with the findings and conclusions in this recommended decision.

General findings. (a) The proposed marketing agreement and the order, as amended, and as hereby proposed to be further amended, and all of the terms and conditions thereof, will tend to effectuate the declared policy of the act;

(b) The parity prices of milk as determined pursuant to section 2 of the act are not reasonable in view of the price of feeds, available supplies of feeds and other economic conditions which affect market supply of and demand for milk in the marketing area, and the minimum prices specified in the proposed marketing agreement and the order, as amended, and as hereby proposed to be further amended, are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk, and be in the public interest; and

(c) The order, as amended, and as hereby proposed to be further amended, will regulate the handling of milk in the same manner as, and will be applicable only to persons in the respective classes of industrial and commercial activity specified in, a marketing agreement upon which a hearing has been held.

Recommended marketing agreement and order, as amended. The order, as amended, and as proposed below to be further amended, is recommended as the detailed and appropriate means by which the foregoing conclusions may be carried out. A revised marketing agreement is not included in this recommended decision because the regulatory provisions thereof would be identical with those contained in the order, as amended, and as proposed to be amended as follows:

1. Delete the last two sentences in § 925.6 *Definition of "marketing area"* and substitute therefor the following: " 'District No. 1' of the marketing area shall include that part of the marketing area lying within the counties of King, Pierce, Snohomish, Thurston, and Grays Harbor. 'District No. 2' of the marketing area shall include that part of the marketing area lying within Whatcom County. 'District No. 3' of the marketing area shall include that part of the marketing area lying within the counties of Lewis and Pacific, and 'District No. 4' of the marketing area shall include that part of the marketing area lying within Skagit County."

2. Delete § 925.13 and substitute therefor the following:

§ 925.13 *Producer milk.* "Producer milk" or "milk received from producers" means milk qualified as described in § 925.12 and either received directly from a farm at a fluid milk plant or country plant or caused to be diverted by a handler for his account from such a plant to a nonpool plant: *Provided,* That if any of the following conditions is met, milk so diverted shall be deemed to have been received by the diverting handler at the plant from which is was diverted:

(a) The milk was diverted either to a nonpool plant not located in the marketing area or to a nonpool plant located in the same district of the marketing area as the plant from which the diversion was made; or

(b) The diversion was a type not referred to in paragraph (a) of this section and the milk involved was produced by a producer from whom milk was received on not less than 20 days during the same month at the plant from which the diversion was made, except that if such 20-day delivery requirement is met for the month of March of any year it need not be met for the next following April, May or June.

3. Delete § 925.18 and substitute therefor the following:

§ 925.18 *Base milk.* "Base milk" means milk delivered by a producer during the month which is not in excess of (a) his daily base computed pursuant to § 925.60 (a) multiplied by the number of days of delivery in such month, or (b) his base computed pursuant to § 925.60 (b): *Provided,* That with respect to any producer on "every-other-day" delivery to a fluid milk plant or country plant, the days of non-delivery shall be considered as days of delivery for the purposes of this section and of § 925.60 (a).

4. Delete the language of § 925.30 preceding paragraph (a) of such section and substitute therefor the following:

§ 925.30 *Monthly reports of receipts and utilization.* On or before the 8th day of each month and in the detail and on forms prescribed by the market administrator, each person who is a handler pursuant to § 925.15 (a), except a producer-handler, shall submit to the market administrator a separate report for each of such handler's fluid milk plants, country plants, and plants where milk or milk products subject to payments required under § 925.70 (b) were handled, and each cooperative association which is a handler pursuant to § 925.15 (b) shall submit to the market administrator a report with respect to milk diverted on its account, containing the following information for the preceding month:

5. Delete § 925.44 and substitute therefor the following:

§ 925.44 *Interplant movements.* Skim milk and butterfat moved as any of the items specified in § 925.41 (a) (1) from a fluid milk plant or country plant to another plant either by transfer or by diversion under conditions of the proviso in § 925.13 shall be assigned (separately) to each class, in the following manner:

(a) From a country plant or fluid milk plant to a fluid milk plant: As Class I milk to the extent Class I milk is available at the transferee plant, subject to the following provisions:

(1) In the event the quantity transferred exceeds the total of receipts from producers and other handlers at the transferor plant, such excess shall be assigned last to the Class I available at the transferee plant;

(2) If more than one transferor plant is involved, the available Class I milk shall be assigned to the transferor plants in the following order:

(i) To fluid milk plants located in District No. 1;

(ii) To country plants located in District No. 1 or in the counties of Kitsap and Mason;

(iii) To country plants and fluid milk plants located in District No. 4; and

(iv) To country plants and fluid milk plants not located in District No. 1, District No. 4, or in the counties of Kitsap and Mason.

(3) If Class I milk is not available in amounts equal to the sum of the quantities to be assigned pursuant to subparagraph (2) of this paragraph, the transferee handler may designate, within each of the four categories of plants listed in such subparagraph, the plant to which the available Class I milk shall be assigned;

(4) If at a fluid milk plant any receipts of skim milk or butterfat from any fluid milk plant(s) or country plant(s) located in District No. 1 or in the counties of Kitsap or Mason are assigned to Class II milk, they shall be allocated to the uses stated in § 925.54 (a) (1) insofar as such uses are available at the transferee plant after allocating to such uses the other source milk at such plant; and

(5) Notwithstanding the prior provisions of this paragraph, any such skim milk and butterfat caused to be moved in bulk by a handler during any month from any fluid milk plant or country plant either by transfer or without being received therein to a fluid milk plant in which facilities are maintained and used during the same month to receive milk or milk products required by applicable health authority regulations to be kept physically separate from milk qualified as described in § 925.12 shall be deemed to have been transferred by such handler to a country plant and shall be classified in accordance with the provisions of paragraph (b) of this section.

(b) From a country plant or fluid milk plant to a country plant: As Class II milk subject to the following conditions:

(1) The skim milk or butterfat so assigned to Class II milk shall be limited to the amount thereof remaining in Class II milk in the transferee plant

after the subtraction pursuant to § 925.45 (b) (2) of other source milk at such plant and after the subtraction of producer shrinkage classified as Class II milk pursuant to § 925.41 (b) (4), and any additional amounts of such skim milk or butterfat shall be assigned to Class I milk;

(2) If more than one transferor plant is involved, the available Class II milk shall be assigned to the transferor plants in the following order:

(i) To country plants and fluid milk plants not located in District No. 1, District No. 4, or in the counties of Kitsap and Mason;

(ii) To country plants and fluid milk plants located in District No. 4;

(iii) To country plants located in District No. 1 or in the counties of Kitsap and Mason; and

(iv) To fluid milk plants located in District No. 1.

(3) If Class II milk is not available in amounts equal to the sum of the quantities to be assigned pursuant to subparagraph (2) of this paragraph, the transferee handler may designate, within each of the four categories of plants listed in such subparagraph, the plant to which the available Class II milk shall be assigned;

(4) If at a country plant any receipts of skim milk or butterfat from any fluid milk plant(s) or country plant(s) located in District No. 1 or in the counties of Kitsap and Mason are assigned to Class II milk, they shall be allocated to the uses stated in § 925.54 (a) (1) insofar as such uses are available at the transferee plant after allocating to such uses the other source milk at such plant; and

(5) Notwithstanding the prior provisions of this paragraph, any such skim milk and butterfat caused to be moved in bulk by a handler during any month from any fluid milk plant or country plant without being received therein to a country plant in which facilities are maintained and used during the same month to receive milk or milk products required by applicable health authority regulations to be kept physically separate from milk qualified as described in § 925.12 shall be deemed to have been transferred by such handler to a country plant and shall be classified in accordance with the provisions of this paragraph.

(c) From a country plant or fluid milk plant to a nonpool plant:

(1) As Class I milk if the transfer is to a nonpool plant located outside the marketing area or to the plant of a producer-handler, except as provided for in subparagraph (2) of this paragraph.

(2) As Class II milk if the transfer is to a nonpool plant located in the marketing area or within any of the counties of Clallam, Jefferson, Grays Harbor, Island, Kitsap and Mason, in the State of Washington, which is not engaged in the distribution of milk for consumption in fluid form: *Provided*, That if such nonpool plant disposes of skim milk or butterfat in any of the forms specified in § 925.41 (a) (1) to any other nonpool plant distributing milk in fluid form which is not located in the marketing area, such disposition up to the quantity of producer milk transferred to the first nonpool plant shall be classified as Class I milk: *Provided further*, That if the preceding proviso does not apply the transferred quantity shall be allocated to uses other than those covered by § 925.54 (a) (1) to the extent that such other Class II milk uses are available at such nonpool plant: *And provided also*, That if the market administrator is not permitted to audit the records of such nonpool plant for the purpose of use verification, the entire transfer shall be classified as Class I milk.

6. Delete § 925.45 (a) and substitute therefor the following:

(a) Correct for mathematical and for other obvious errors the monthly report submitted by such handler and compute the total pounds of skim milk and butterfat in each class: *Provided*, That when nonfat milk solids derived from nonfat dry milk solids, condensed skim milk, or any other product condensed from skim milk, are utilized by such handler either (1) to fortify (or as an additive to) fluid milk, flavored milk, skim milk or any other milk product, or (2) for disposition in reconstituted form as skim milk or a milk drink, the total pounds of skim milk computed for the appropriate class of use shall reflect a volume equivalent to the skim milk used to produce such nonfat milk solids.

7. Delete in § 925.52 (a) the figure "1.25" and substitute therefor the figure "1.2."

8. Delete § 925.53 and substitute therefor the following:

§ 925.53 *Location adjustments to handlers on Class I milk.* In computing the value of each handler's milk pursuant to § 925.70 the following location adjustments shall be credited with respect to each hundredweight of skim milk and butterfat, respectively, received and classified as Class I milk: 50 cents at any plant located in Clallam County or Jefferson County; 20 cents at any plant located in District No. 4; and 40 cents at any other plant not located in District No. 1 or in the counties of Kitsap and Mason.

9. Delete § 925.54 (a) and substitute therefor the following:

(a) Compute the sum (in pounds) of: (1) The total utilization at such plant (including any disposition of skim milk and butterfat from such plant for similar uses at nonpool plants) of skim milk and butterfat, respectively, in evaporated milk in hermetically sealed cans, butter, nonfat dry milk solids, powdered whole milk, all cheeses except "baker's," "pot," cottage, cream and neufchatel, and shrinkage allowable as Class II milk pursuant to § 925.41 (b) (4) and (5), and (2) the total quantity of skim milk and butterfat transferred to other fluid milk plants and country plants located in District No. 1 or in the counties of Kitsap and Mason and allocated to the uses specified in subparagraph (1) of this paragraph (as provided in § 925.44 (a) (4) and (b) (4);

10. Delete § 925.60 (a) and (b) and substitute therefor the following:

(a) The daily base of each producer whose milk was received by a handler(s) on not less than one hundred twenty (120) days during the months of August through December, inclusive, shall be an amount computed by dividing such producer's total pounds of milk delivered in such five-month period by the number of days from the date of his first delivery to the end of such five-month period. The base so computed, which shall be recomputed each year, shall become effective on the first day of February next following and shall remain in effect through the month of January of the next succeeding year.

(b) Any producer who is not eligible to receive a base computed pursuant to paragraph (a) of this section, shall have, beginning with February 1954, a monthly base computed by multiplying his deliveries to a handler(s) during the month by the appropriate monthly percentage in the following table:

January	80	July	55
February	75	August	75
March	65	September	90
April	55	October	90
May	45	November	90
June	50	December	90

11. Delete § 925.61 and substitute therefor the following:

§ 925.61 *Base rules.* The following rules shall be observed in determination of bases:

(a) A base may be transferred upon written notice to the market administrator on or before the last day of the month of transfer, but under the following circumstances only:

(1) Upon the death, retirement or entry into military service of a producer, the entire base may be transferred to a member (or members) of his immediate family who continues to supply producer milk from the same farm; or

(2) If a base is held jointly and such joint holding is terminated the entire base may be transferred as a unit to one of the joint holders or to a new joint holding in which at least one of the original joint holders is a participant.

(b) A producer who ceases deliveries to a fluid milk plant or country plant for more than 45 days shall lose his base if computed pursuant to § 925.60 (a) and if he resumes deliveries to such a plant he shall be paid on a base determined pursuant to § 925.60 (b) until he can establish a new base under § 925.60 (a) to begin the next February 1.

(c) By notifying the market administrator in writing on or before the 15th day of any month, a producer holding a base established pursuant to § 925.60 (a) may relinquish such base by cancellation, and effective from the first day of the month in which notice is received by the market administrator until the next February 1 such producer's base shall be computed in the manner provided by § 925.60 (b).

(d) As soon as bases computed by the market administrator are allotted, notice of the amount of each producer's base shall be given by the market administrator to the handler receiving such producer's milk and to the cooperative association of which the producer is a member. Each handler, following receipt of such notice, shall promptly post in a conspicuous place at each of his plants a list or lists showing the base of each producer whose milk is received at such plant.

(e) If a producer operates more than one farm he shall establish a separate base with respect to producer milk delivered from each such farm.

(f) Only producers as defined in § 925.12 may establish or earn a base pursuant to the provisions of § 925.60, and only one base shall be allotted with respect to milk produced by one or more persons where the land, buildings, and equipment used are jointly owned or operated.

12. Delete that portion of § 925.70 (a) prior to subparagraph (1) of such paragraph and substitute therefor the following:

(a) Except as provided in paragraph (b) of this section, the total value of milk received during any month at each plant by each handler, including a cooperative association, shall be a sum of money computed by the market administrator as follows:

13. Delete § 925.70 (a) (6) and (b) and substitute therefor the following:

(6) Add, with respect to other source milk (including overage allocated to other source milk) received at each fluid milk plant and country plant of such handler in excess of the total volume of his Class II milk (except allowable shrinkage) at such plant, an amount computed by multiplying the hundredweight of such other source milk by the difference between the Class I milk and Class II milk prices adjusted, respectively, by the butterfat differentials provided in § 925.52 (based on the butterfat test of such other source milk), and in the case of a fluid milk plant or country plant not located in District No. 1, or in the counties of Kitsap or Mason, such difference shall be reduced as follows: 20 cents at any such plant located in District No. 4; 50 cents at any such plant located in Clallam County or Jefferson County; and 40 cents at any other plant not located in District No. 1 or in the counties of Kitsap or Mason.

(b) The value of milk of each handler at any plant where only other source milk was received and from which, during the month, some other source milk was disposed of within the marketing area as Class I milk pursuant to § 925.41 (a) (1) shall be a sum of money computed by the market administrator by multiplying the hundredweight of such other source milk so disposed of by the difference between the Class I milk and Class II milk prices adjusted, respectively, by the butterfat differentials provided in § 925.52 (based on butterfat test of such other source milk), and, in the event disposition within the marketing area was only within Districts Nos. 2, 3, or 4, such difference shall be reduced by 40 cents, 40 cents, and 20 cents per hundredweight, respectively.

14. Delete § 925.80 (b) and substitute therefor the following:

(b) On or before the 17th day after the end of each month each handler shall pay to each cooperative association which operates a fluid milk plant or country plant, for skim milk and butterfat received from such cooperative association during such month, an amount of money computed by multiplying the total pounds of such skim milk and butterfat in each class (pursuant to § 925.41) by the class price taking into account any location adjustment, as provided by § 925.53 and 925.54, applicable at the plant at which payment for such skim milk and butterfat is required under the provisions of § 925.70.

15. Delete § 925.81 and substitute therefor the following:

§ 925.81 *Location adjustments to producers.* In making payments to producers pursuant to § 925.80 (a) (1) the following adjustments for location are applicable:

(a) Deductions may be made per hundredweight of base milk received from producers, as follows: 50 cents at any plant located in Clallam County or Jefferson County; 20 cents at any plant located in District No. 4; and 40 cents at any other plant not located in District No. 1 or in the counties of Kitsap and Mason.

(b) 25 cents per hundredweight shall be added to the uniform price for excess milk received from producers at plants located in District No. 1 or in the counties of Kitsap and Mason.

16. Delete § 925.87 (a) and substitute therefor the following:

(a) Except as set forth in paragraph (b) of this section, each handler, in making payments to producers (other than with respect to milk of such handler's own production) pursuant to § 925.80 (a), shall make a deduction of 5 cents per hundredweight of milk, or such amount not exceeding 5 cents per hundredweight as the Secretary may prescribe, with respect to the following:

(1) All milk received from producers at a plant not operated by a cooperative association;

(2) All milk received at a plant operated by a cooperative association from producers who are not members of such association; and

(3) All milk reecived at a plant operated by a cooperative association(s) from producers who are members thereof but for whom any of the services set forth below in this paragraph is not being performed by such association(s), as determined by the market administrator.

Such deduction shall be paid by the handler to the market administrator on or before the 15th day after the end of the month. Such moneys shall be expended by the market administrator for the verification of weights, sampling, and testing of milk received from producers and in providing for market information to producers; such services to be performed in whole or in part by the market administrator or by an agent engaged by and responsible to him.

Filed at Washington, D. C., this 3d day of December 1953.

[SEAL] ROY W. LENNARTSON,
Assistant Administrator.

[F. R. Doc. 53-10265; Filed, Dec. 8, 1953; 8:48 a. m.]

[7 CFR Part 953]

LEMONS GROWN IN STATES OF CALIFORNIA AND ARIZONA

EXPENSES AND FIXING OF RATE OF ASSESSMENT FOR 1953-54 FISCAL YEAR

Consideration is being given to the following proposals submitted by the Lemon Administrative Committee, established pursuant to the marketing agreement, as amended, and Order No. 53, as amended (7 CFR Part 953; 18 F. R. 6767), regulating the handling of lemons grown in the State of California or in the State of Arizona, effective under the Agricultural Marketing Agreement Act of 1937, as amended, as the agency to administer the terms and provisions thereof: (1) That the Secretary of Agriculture find that expenses not to exceed $119,364.00 will be necessarily incurred during the fiscal year ending October 31, 1954, for the maintenance and functioning of the committee established under the aforesaid amended marketing agreement and order, and (2) that the Secretary of Agriculture fix, as the pro rata share of such expenses which each handler who first handles lemons shall pay in accordance with the aforesaid amended marketing agreement and order during the aforesaid fiscal year, the rate of assessment at $0.015 per packed box of lemons, or an equivalent quantity of lemons, handled by him as the first handler thereof during said fiscal year.

All persons who desire to submit written data, views, or arguments in connection with the aforesaid proposals should file the same with the Director, Fruit and Vegetable Branch, Production and Marketing Administration, United States Department of Agriculture, Room 2077, South Building, Washington 25, D. C., not later than the close of business on the 10th day after the publication of this notice in the FEDERAL REGISTER. All documents should be filed in quadruplicate.

Terms used herein shall have the same meaning as when used in said amended marketing agreement and order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. and Sup. 608c)

Issued this 3d day of December 1953.

[SEAL] S. R. SMITH,
Director, Fruit and Vegetable Branch, Production and Marketing Administration.

[F. R. Doc. 53-10254; Filed, Dec. 8, 1953; 8:47 a. m.]

NOTICES

DEPARTMENT OF THE INTERIOR

Office of the Secretary

[Order 2741]

Regional Director, Region 2, Bureau of Reclamation

EXERCISE OF AUTHORITY

December 2, 1953.

Section 1. *Revocation; saving clause.* (a) The area comprising California Projects, Bureau of Reclamation, is hereby redesignated Region 2, Bureau of Reclamation, and Order No. 2725 (18 F. R. 3785) on the subject "Exercise of Authority by Officials of California Projects, Bureau of Reclamation" is revoked.

(b) Any redelegation of authority made pursuant to Order No. 2725, shall continue in effect until modified or revoked by proper authority.

Sec. 2. *Construction of existing documents.* All references to the Supervising Engineer, California Projects, Bureau of Reclamation, in any document, including any Secretarial delegation of authority with respect to contracts the provisions of which had received Secretarial approval, shall be deemed to refer to the Regional Director, Region 2, Bureau of Reclamation.

(Sec. 2, Reorg. Plan No. 3 of 1950; 5 U. S. C., 1946 ed., Sup. V, sec. 133z-15, note)

Orme Lewis,
Acting Secretary of the Interior.

[F. R. Doc. 53-10243; Filed, Dec. 8, 1953; 8:45 a. m.]

DEPARTMENT OF LABOR

Wage and Hour Division

Learner Employment Certificates

ISSUANCE TO VARIOUS INDUSTRIES

Notice is hereby given that pursuant to section 14 of the Fair Labor Standards Act of 1938, as amended (52 Stat. 1068, as amended; 29 U. S. C. and Sup. 214), and Part 522 of the regulations issued thereunder (29 CFR Part 522), special certificates authorizing the employment of learners at hourly wage rates lower than the minimum wage rates applicable under section 6 of the act have been issued to the firms listed below. The employment of learners under these certificates is limited to the terms and conditions therein contained and is subject to the provisions of Part 522. The effective and expiration dates, occupations, wage rates, number or proportion of learners, and learning period for certificates issued under the general learner regulations (§§ 522.1 to 522.14) are as indicated below; conditions provided in certificates issued under special industry regulations are as established in these regulations.

Single Pants, Shirts and Allied Garments, Women's Apparel, Sportswear and Other Odd Outerwear, Rainwear, Robes and Leather and Sheep-Lined Garments Divisions of the Apparel Industry Learner Regulations (29 CFR 522.160 to 522.168, as amended June 2, 1952, 17 F. R. 3818).

Biflex Johnston, Inc., Calhoun Street, Johnston, S. C., effective 11-25-53 to 11-24-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (foundation garments).

Cluett, Peabody & Co., Inc., Bremen, Ga., effective 11-27-53 to 11-26-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (dress shirts).

Finesilver Manufacturing Co., 816 Camaron Street, San Antonio, Tex., effective 11-27-53 to 11-26-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (work pants, dungarees, and shirts).

Forest City Manufacturing Co., Collinsville, Ill., effective 12-5-53 to 12-4-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (dresses).

Hickerson & Co., Inc., Brainerd, Minn., effective 12-10-53 to 12-9-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (men's and boys' work and sport clothing).

Jinright Manufacturing Co., Coleman, Tex., effective 12-3-53 to 12-2-54; 10 learners for normal labor turnover purposes (ladies' and children's jeans, shirts, etc.).

Luzerne Outerwear Manufacturing Corp., 87-93 North Canal Street, Shickshinny, Pa., effective 11-27-53 to 11-26-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (sport jackets).

Regina Manufacturing Co., 44 Carey Avenue, Wilkes-Barre, Pa., effective 12-1-53 to 11-30-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (corsets and brassieres).

The Shirtmaster Co., Inc., Abbeville, S. C., effective 12-7-53 to 12-6-54; 10 percent of the total number of factory production workers for normal labor turnover purposes (sport shirts).

York Manufacturing Co., York, Ala., effective 11-23-53 to 5-22-54; 30 learners for expansion purposes (shorts and longies).

Glove Industry Learner Regulations (29 CFR 522.220 to 522.231, as amended July 13, 1953, 18 F. R. 3292).

Boss Manufacturing Co., Gregory and Harrington Streets, Cisco, Tex., effective 11-24-53 to 11-23-54; 10 learners for normal labor turnover purposes (work gloves) (replacement certificate).

Knitted Wear Industry Learner Regulations (29 CFR 522.68 to 522.79, as amended January 21, 1952, 16 F. R. 12866).

Union Underwear Co., Inc., Frankfort, Ky., effective 12-11-53 to 12-10-54; 5 percent of the total number of factory production workers for normal labor turnover purposes (men's and boys' shorts).

Shoe Industry Learner Regulations (29 CFR 522.250 to 522.260, as amended March 17, 1952, 17 F. R. 1500).

Manistee Shoe Manufacturing Co., 50 Filer Street, Manistee, Mich., effective 11-27-53 to 11-26-54; 10 percent of the number of productive factory workers in the plant for normal labor turnover purposes.

Regulations Applicable to the Employment of Learners (29 CFR 522.1 to 522.14).

Cardinal Industries, Berlin, Wis., effective 11-27-53 to 5-26-54; 5 learners for normal labor turnover purposes (learners may not be engaged at subminimum wage rates in the production of loafer sox); sewing machine operators, 240 hours at 65 cents per hour (carpenter aprons).

Fabriko Inc., Green Lake, Wis., effective 11-27-53 to 5-26-54; 7 learners for normal labor turnover purposes (learners at subminimum wage rates are not authorized in the production of loafer sox); sewing machine operators, 240 hours at 65 cents per hour (aprons, bowl covers, etc.).

The following special learner certificates were issued in Puerto Rico to the companies hereinafter named. The effective and expiration dates, the number of learners, the learner occupations, the length of the learning period and the learner wage rates are indicated, respectively.

Rosanne Optical Manufacturing Co., Inc., Hato Rey, P. R., effective 11-23-53 to 3-22-54; 15 learners; any factory production operation involved in the manufacture of optical frames made from plastic material, 200 hours at 35 cents per hour (optical frames).

Each certificate has been issued upon the employer's representation that employment of learners at subminimum rates is necessary in order to prevent curtailment of opportunities for employment, and that experienced workers for the learner occupations are not available. The certificates may be cancelled in the manner provided in the regulations and as indicated in the certificates. Any person aggrieved by the issuance of any of these certificates may seek a review or reconsideration thereof within fifteen days after publication of this notice in the Federal Register, pursuant to the provisions of Part 522.

Signed at Washington, D. C., this 30th day of November 1953.

Milton Brooke,
Authorized Representative of the Administrator.

[F. R. Doc. 53-10244; Filed, Dec. 8, 1953; 8:46 a. m.]

CIVIL AERONAUTICS BOARD

[Docket No. 6078]

Air America, Inc. et al.; Enforcement Proceeding

NOTICE OF POSTPONEMENT OF HEARING

In the matter of a complaint against Air America, Inc. and certain allegedly associated companies , including Air America Agency Corporation, Air America Agency, Inc., Airline Reservations, Inc. (New York), Airline Reservations, Inc. (Illinois), and Airline Tickets, Inc., filed by American Airlines, Inc., and charging aforesaid respondents, together and severally, with violations of section 411 of the Civil Aeronautics Act of 1938, as amended, and with violations of § 291.1 (a) of the Board's Economic Regulations.

Notice is hereby given that a public hearing in the above-entitled proceeding originally assigned to be held on October 12, 1953, and later re-assigned for December 8, 1953, is hereby postponed until January 5, 1954, at 10:00 a. m., e. s. t., in Room E-210, Temporary Building No. 5, Seventeenth Street and Constitution Avenue NW., Washington, D. C., before Examiner Edward T. Stodola.

Without limiting the scope of the issues presented by the complaint filed by American Airlines, Inc., particular attention will be given to the question whether the respondents, or any of them, are in violation of section 411 of the act and § 291.1 (a) of the Board's Economic Regulations and whether the Board shall exercise its powers under sections 205 (a), 411, 1002 (b) and 1002 (c) of the act and order the respondents, or any of them, to cease and desist from activities and practices which have allegedly resulted in violations of said section 411 of the act and said § 291.1 (a) of the Board's Economic Regulations.

Notice is hereby further given that any person other than parties of record desiring to be heard in this proceeding must file with the Board on or before January 5, 1954, a statement setting forth the issues of fact or law raised by this proceeding which he desires to controvert.

For further details of the issues involved in this proceeding, all interested parties are referred to the complaint and other documents on file under Docket No. 6078 in the docket section of the Civil Aeronautics Board.

Dated at Washington, D. C., December 4, 1953.

[SEAL] FRANCIS W. BROWN,
Chief Examiner.

[F. R. Doc. 53-10267; Filed, Dec. 8, 1953; 8:48 a. m.]

OFFICE OF DEFENSE MOBILIZATION

[ODM (DPA) Request No. 52—DPAV—48 (a)]

GOODYEAR ENGINEERING CORP.

DELETION FROM LIST OF COMPANIES ACCEPTING REQUEST TO PARTICIPATE IN ACTIVITIES OF ORDNANCE CORPS INTEGRATION COMMITTEE ON PROPELLANTS AND EXPLOSIVES

Pursuant to section 708 of the Defense Production Act of 1950, as amended, there is herewith published the name of the following company which has been deleted from the list of companies accepting the request to participate in the activities of the Integration Committee on Propellants and Explosives in accordance with the voluntary plan entitled, "Plan and Regulations of Ordnance Corps Covering the Integration Committee on Propellants and Explosives," dated May 15, 1953. The request was published in 18 F. R. 5338 on September 2, 1953.

Goodyear Engineering Corporation, care Indiana Arsenal, Charlestown, Indiana.

(Sec. 708, 67 Stat. 129, Pub. Law 95, 83d Cong., E. O. 10480, Aug. 14, 1953, 18 F. R. 4939)

Dated: December 7, 1953.

ARTHUR S. FLEMMING,
Director.

[F. R. Doc. 53-10283; Filed, Dec. 7, 1953; 1:06 p. m.]

SECURITIES AND EXCHANGE COMMISSION

[File No. 70-3159]

DUVAL SULPHUR & POTASH CO. AND UNITED GAS CORP.

NOTICE OF PROPOSED ISSUANCE OF COMMON STOCK DIVIDEND BY SUBSIDIARY AND ACQUISITION OF ITS PRO-RATA SHARES BY PARENT COMPANY

DECEMBER 2, 1953.

Notice is hereby given that Duval Sulphur & Potash Company ("Duval"), a non-utility subsidiary of United Gas Corporation ("United") which in turn is a public-utility subsidiary of Electric Bond and Share Company, a registered holding company, and United have filed a joint application with this Commission pursuant to the Public Utility Holding Company Act of 1935 ("act"). Applicants have designated sections 6 (b), 9 and 10 of the act as applicable to the proposed transactions, which are summarized as follows:

The authorized Capital Stock of Duval consists of 1,000,000 shares, no par value, of which 875,000 shares are issued and outstanding. United owns 653,724 shares (74.71 percent) of Duval's outstanding Capital Stock, the balance thereof being held by the public generally. In addition to its regular cash dividend, Duval proposes the payment of a stock dividend to the holders of its Capital Stock. On November 19, 1953, the Board of Directors of Duval, subject to obtaining appropriate authorization under the act, declared a dividend on Duval's Capital Stock, no par value, at the rate of one share of Duval's Capital Stock for each seven shares of such stock held. The record date and payment date for such dividend are December 10, 1953 and December 31, 1953, respectively. No fractional shares of Capital Stock will be issued. Dividend Scrip Certificates representing fractional shares of Capital Stock of Duval will be delivered which may be combined with other Dividend Scrip Certificates representing in the aggregate one or more full shares of Capital Stock of Duval and may be exchanged for such share or shares during a period which expires on December 31, 1954.

Prior to the close of business on December 31, 1954, Manufacturers Trust Company, 45 Beaver Street, New York 15, New York, Transfer and Dividend Disbursing Agent for Duval, will act as the agent of holders of Dividend Scrip Certificates who may desire (a) to purchase additional Dividend Scrip Certificates so that their holdings will aggregate one full share of Capital Stock of Duval, or (b) to sell their Dividend Scrip Certificates. Such purchases and sales will be based on market prices for full shares on the American Stock Exchange. Dividend Scrip Certificate holders will not be charged for such services. As soon as practicable after December 31, 1954, all shares of Capital Stock represented by Dividend Scrip Certificates then outstanding will be sold, and holders of Dividend Scrip Certificates will, until December 31, 1955, be entitled to surrender said certificates for their pro rata share of the cash net proceeds of such sale. After December 31, 1955, Dividend Scrip Certificates will be void.

Dividend Scrip Certificates do not confer upon the holder any voting or other rights of a stockholder, nor shall any of the shares of Capital Stock represented by Dividend Scrip Certificates be voted.

In connection with the payment of the stock dividend, the Board of Directors fixed the amount to be transferred from "Earned Surplus" (which at September 30, 1953, was $7,116,422.59) to "Capital Stock" on Duval's books at $26.75 for each share of additional Capital Stock to be issued (being the closing price on November 18, 1953, for Duval's Capital Stock on the American Stock Exchange, to which such stock is admitted to unlisted trading privileges), or a total of $3,343,750 for the entire 125,000 shares to be issued.

In connection with the transactions proposed, United will be entitled to receive 93,389 shares and a Dividend Scrip Certificate entitling it to receive one-seventh of a share of Duval's Capital Stock. United's investment in Duval is carried on its books at $4,679,352. Upon consummation, the transaction will be reflected by an increase in the number of shares of Capital Stock of Duval owned by United from 653,724 shares to 747,113 shares with no change in the dollar investment, except to the extent that the dollar investment would be increased by the cost of United's exercise of its privilege to purchase additional Dividend Scrip Certificates sufficient to aggregate one full share of the Capital Stock of Duval.

Notice is further given that any interested person may, not later than December 17, 1953 at 5:30 p. m., e. s. t., request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request, and the issues of fact or law, if any, raised by said application which he desires to controvert; or he may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after said date said application, as filed or as amended, may be granted and permitted to become effective as provided in Rule U-23 of the rules and regulations promulgated under the act, or the Commission may exempt such transactions as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10220; Filed, Dec. 7, 1953; 8:46 a. m.]

[File Nos. 54-164, 59-14]

INTERNATIONAL HYDRO-ELECTRIC SYSTEM

ORDER GRANTING RECITALS

DECEMBER 3, 1953.

The Commission having heretofore ordered the liquidation of International Hydro-Electric System ("IHES"), a registered holding company, pursuant to section 11 (b) (2) of the Public Utility Holding Company Act of 1935 ("act"); and

The United States District Court for the District of Massachusetts ("Court") having taken jurisdiction over said holding company pursuant to section 11 (d) of the act for the purpose of enforcing said order, and having appointed Bartholomew A. Brickley as trustee ("Trustee") to hold and administer the assets of said holding company pending its liquidation; and

The Trustee having notified the Commission pursuant to Rule U-44 (c) of the rules and regulations under the act that he proposes to sell under competitive conditions, prior to December 31, 1953, certain of the portfolio securities of IHES, to wit, 125,000 common shares of New England Electric System, as a part of his liquidation program; and the Court by order entered November 30, 1953, having authorized such sale, reserving jurisdiction to pass upon the bid price before consummation of the sale; and the Commission having notified the Trustee that no declaration is required to be filed with the Commission with respect to this matter; and

The Trustee having requested that the Commission enter an order containing appropriate recitals pursuant to Supplement R and section 1808 (f) of the Internal Revenue Code with respect to the sale of said securities, and the Commission deeming it appropriate that such request be granted:

It is ordered and recited, That the sale of 125,000 common shares, $1.00 par value of New England Electric System now held by International Hydro-Electric System is necessary or appropriate to effectuate the provisions of section 11 (b) of the Public Utility Holding Company Act of 1935, all in accordance with the meaning and requirements of the Internal Revenue Code and section 1808 (f) and Supplement R thereof.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10249; Filed, Dec. 8, 1953; 8:46 a. m.]

[File No. 70-3148]

NARRAGANSETT ELECTRIC CO. AND NEW ENGLAND ELECTRIC SYSTEM

ORDER AUTHORIZING ISSUANCE AND SALE OF COMMON STOCK BY SUBSIDIARY TO PARENT COMPANY

DECEMBER 3, 1953.

New England Electric System ("NEES"), a registered holding company, and the Narragansett Electric Company ("Narragansett"), a subsidiary of NEES, having filed a joint application with this Commission, pursuant to sections 6 (b) and 10 of the Public Utility Holding Company Act of 1935 ("the act") with respect to the following proposed transactions:

Under a contract dated October 27, 1953, Narragansett proposes, prior to April 1, 1954, to issue and sell to NEES, the holder of all of its outstanding $50 par value common stock, 100,000 additional shares of such stock at the price of $50 per share. It is indicated that such sale is proposed in order to provide Narragansett with new money required to finance, in part, its 1954 construction program. The proceeds derived from the sale of the common stock will be applied by Narragansett to the payment of its then outstanding short-term note indebtedness and any balance will be used for construction or to reimburse its treasury therefor.

The issue and sale of the common stock has been approved by the Public Utility Administrator, Department of Business Regulation of the State of Rhode Island in which State Narragansett is organized and doing business.

The expenses to be incurred in connection with said transactions are estimated at $12,500 for Narragansett and $300 for NEES. Such expenses include $2,000 to be paid by Narragansett and $300 by NEES for services rendered at cost by New England Power Service Company, an affiliated service company.

Applicants request that the Commission's order be made effective upon issuance.

Due notice having been given of the filing of the joint application, and a hearing not having been requested or ordered by the Commission; and the Commission finding that the applicable provisions of the act and the rules promulgated thereunder are satisfied and that no adverse findings are necessary; and deeming it appropriate in the public interest and in the interest of investors and consumers that said joint application be granted forthwith, without the imposition of terms and conditions other than those prescribed in Rule U-24:

It is ordered, Pursuant to Rule U-23 and the applicable provisions of the act, that said joint application be granted forthwith, subject to the terms and conditions prescribed in Rule U-24.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10245; Filed, Dec. 8, 1953; 8:46 a. m.]

[File No. 70-3149]

NARRAGANSETT ELECTRIC CO.

ORDER AUTHORIZING SALE OF PREFERRED STOCK AT COMPETITIVE BIDDING

DECEMBER 3, 1953.

The Narragansett Electric Company ("Narragansett"), a subsidiary of New England Electric System ("NEES"), a registered holding company, having filed an application-declaration with this Commission, pursuant to sections 6 (a) (2), 6 (b) and 7 (e) of the Public Utility Holding Company Act of 1935 ("the act"), and Rules U-42 (b) (2) and U-50 thereunder with respect to the following proposed transactions:

Narragansett presently has outstanding 180,000 shares of Cumulative Preferred Stock, 4½ percent Series ($50 par value) and proposes to issue and sell 150,000 shares of a new series of Preferred Stock of the par value of $50 per share. Narragansett also proposes to amend its charter and to incorporate therein certain provisions for the protection of the preferred stockholders which provisions will entitle such stockholders to certain rights and privileges, with respect to, among other things, the issuance of additional securities, dividends and voting power. The proposed sale of preferred stock will be pursuant to the competitive bidding requirements of Rule U-50. The dividend rate (which shall be expressed in a multiple of 0.08 of 1 percent and not in excess of 6 percent) and the price, exclusive of accrued dividends, to be paid to Narragansett (which shall be not less than $50 and shall not exceed $51.375 per share) will be determined by competitive bidding. Bids will be received up to 12 noon on a date, not less than ten days nor more than thirty days after the date of the invitation for bids, which the company shall fix by giving notice at least forty-two hours in advance to each prospective bidder.

The proceeds from the proposed sale of preferred stock (exclusive of accrued dividends and the expenses of issuance) are to be applied to the payment of short-term note indebtedness presently outstanding in the aggregate of $6,250,000 and, according to the application-declaration may be outstanding in the aggregate amount of $7,450,000 at the time the preferred stock is sold, and the balance, if any, of the proceeds will be used to pay for capitalizable expenditures or to reimburse the treasury therefor.

The proposed issue and sale of preferred stock has been approved by the Public Utility Administrator, Department of Business Regulation of the State of Rhode Island.

Due notice having been given of the filing of the application-declaration, and a hearing not having been requested of or ordered by the Commission; and the Commission finding that the applicable provisions of the act and rules promulgated thereunder are satisfied and that no adverse findings are necessary, and deeming it appropriate in the public interest and the interest of investors and consumers that said application-declaration, as amended, be granted and permitted to become effective:

It is ordered, Pursuant to Rule U-23 and the applicable provisions of said act, that said application-declaration, as amended, be and hereby is, granted and permitted to become effective forthwith, subject to the terms and conditions prescribed in Rule U-24 and subject to the further condition that the proposed sale of preferred stock shall not be consummated until the result of competitive bidding with respect thereto shall have been made a matter of record in this proceeding and a further order shall have been entered by this Commission in the light of the record so completed, which order may contain such further terms and conditions as may then be deemed appropriate.

It is further ordered, That jurisdiction be, and hereby is, reserved over the payment of all fees and expenses incurred or to be incurred in connection with the proposed transactions.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10246; Filed, Dec. 8, 1953; 8:46 a. m.]

[File No. 70-3158]

WHEELING ELECTRIC CO.

NOTICE REGARDING PROPOSED ISSUE AND SALE OF SHORT-TERM NOTES

DECEMBER 3, 1953.

Notice is hereby given that Wheeling Electric Company ("Wheeling"), a public utility subsidiary of American Gas and Electric Company, a registered holding company, has filed a declaration with this Commission pursuant to the Public Utility Holding Company Act of 1935 ("act"), and has designated sections 6 and 7 thereof as applicable to the proposed transaction which is summarized as follows:

The proposed transactions cover the establishment of a line of credit with a banking institution and the proposed borrowing under such line of credit of an amount not to exceed $1,000,000 outstanding at any one time, from time to time, prior to December 31, 1954, from such banking institution and the issuance and delivery of Notes evidencing such borrowings by Wheeling.

The Notes to be issued by Wheeling in evidence of such borrowings will be dated as of the date of such borrowings in each case and will in no event mature in more than 270 days after the date of issuance.

Of the $1,000,000 proposed to be borrowed, Wheeling has already borrowed $400,000 from the said banking institution and has issued its note in evidence thereof. This borrowing, in the amount of $400,000, was made on October 6, 1953, and was exempted from the provisions of section 6 (a) by the first sentence of section 6 (b) of the act.

It is expected that the next borrowing, in the amount of $100,000 will be made on or about January 1, 1954. The note evidencing such borrowing of $100,000 will bear interest from the date thereof at the then current prime credit rate which is currently 3¼ percent per annum.

Subsequent borrowings will be made from time to time prior to December 31, 1954 in amounts depending upon Wheeling's cash requirements and not to exceed $1,000,000 outstanding at any one time under the said line of credit. Such subsequent borrowings will bear interest from the respective dates thereof at the then current prime credit rate.

Wheeling may prepay the notes from time to time, in whole or in part, without premium.

No finders' fees or commissions are to be paid by Wheeling in connection with the proposed transactions, and it is estimated that miscellaneous expenses to be incurred by Wheeling will not exceed the nominal amount of $250.

Notice is further given that any interested person may, not later than December 21, 1953, at 5:30 p. m., e. s. t., request the Commission in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by the said declaration which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after that date, said declaration, as filed or as amended, may be permitted to become effective as provided in Rule U-23 of the rules and regulations promulgated under the act, or the Commission may exempt such transaction as provided in Rule U-20 (a) and Rule U-100 thereof. All interested persons are referred to said declaration which is on file in the offices of the Commission for a statement of the transaction therein proposed.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10247; Filed, Dec. 8, 1953; 8:46 a. m.]

[File No. 70-3160]

UNITED GAS CORP. AND UNION PRODUCING CO.

NOTICE REGARDING LOAN BY PARENT COMPANY TO SUBSIDIARY

DECEMBER 3, 1953.

United Gas Corporation ("United"), a public-utility subsidiary of Electric Bond and Share Company, a registered holding company, and its non-utility subsidiary, Union Producing Company ("Union"), have filed a joint application with this Commission pursuant to the provisions of the Public Utility Holding Company Act of 1935 ("act"), particularly sections 6 (b), 9, and 10 thereof with respect to transactions proposed therein which are summarized as follows:

United proposes to lend to Union, its wholly owned subsidiary, and the latter proposes to borrow from United, not to exceed an aggregate amount of $2,000,000 during a period following the date of the entry of the Commission's order herein to the end of 1954 in such installments and at such times as funds may be required and requested from United. The proceeds from the loan will be used by Union to increase its working capital.

The proposed loan will be evidenced by unsecured promissory notes issued by Union to United or order, from time to time, payable on or before six years from the date of issue of such notes, bearing interest at the rate of 5 percent per annum, payable semi-annually on July 1 and January 1 of each year.

Union has presently issued and outstanding $15,000,000 principal amount of its promissory notes consisting of $7,000,000 principal amount of 3 percent Notes, $4,000,000 principal amount of 4 percent Notes, and $4,000,000 principal amount of 5 percent Notes, all such notes being payable on or before six (6) years from dates of issue. All of said notes are owned by United, and $12,000,000 principal amount of such notes are pledged with the Guaranty Trust Company of New York, the Corporate Trustee, under United's Mortgage and Deed of Trust, dated as of October 1, 1944, in favor of Guaranty Trust Company of New York and Henry A. Theis (Herbert E. Twyeffort, Successor Trustee), Trustees, as supplemented. The additional promissory notes of Union to be acquired from time to time by United in connection with the transactions proposed herein will, upon acquisition by United be pledged with the Corporate Trustee under its Mortgage and Deed of Trust.

Notice is further given that any interested person may, not later than December 18, 1953, at 5:30 p. m., e. s. t., request the Commission in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request and the issues of fact or law, if any, raised by the said application which he desires to controvert, or may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, 425 Second Street NW., Washington 25, D. C. At any time after December 18, 1953, said application as filed or as amended may be permitted to become effective as provided in Rule U-23 of the rules and regulations promulgated under the act, or the Commission may exempt such transaction as provided in Rule U-20 (a) and Rule U-100 thereof.

By the Commission.

[SEAL] NELLYE A. THORSEN,
Assistant Secretary.

[F. R. Doc. 53-10248; Filed, Dec. 8, 1953; 8:46 a. m.]

UNITED STATES TARIFF COMMISSION

[Investigation 31]

ALSIKE CLOVER SEED

NOTICE OF INVESTIGATION

Upon application filed November 23, 1953, by W. W. Thompson, Klamath Falls, Oregon, and others, the United States Tariff Commission, on the 2d day of December 1953, instituted an investigation under section 7 of the Trade Agreements Extension Act of 1951, as amended, and section 332 of the Tariff Act of 1930, to determine whether alsike clover seed provided for in paragraph 763 of the Tariff Act of 1930, and on which a concession was granted under the General Agreement on Tariffs and Trade, is, as a result in whole or in part of the customs treatment reflecting such concession, being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing like or directly competitive products.

Inspection of application. The application filed in this case is available for public inspection at the office of the secretary, United States Tariff Commission, Eighth and E Streets NW., Washington, D. C., and in the New York office of the Tariff Commission, located in Room 437 of the Custom House, where it may be read and copied by persons interested.

I certify that the above investigation was instituted by the Tariff Commission on the 2d day of December 1953.

Issued: December 3, 1953.

[SEAL] DONN N. BENT,
Secretary.

[F. R. Doc. 53-10250; Filed, Dec. 8, 1953; 8:47 a. m.]

INTERSTATE COMMERCE COMMISSION

[4th Sec. Application 28721]

BILLETS, BLOOMS, INGOTS, FROM ILLINOIS, NEW YORK, AND OHIO TO ORLANDO, FLA.

APPLICATION FOR RELIEF

DECEMBER 3, 1953.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: H. R. Hinsch, Alternate Agent, for carriers parties to schedules listed below.

Commodities involved: Billets, blooms, ingots, slabs and bars, iron or steel, carloads.

From: Chicago and Sterling, Ill., Buffalo, N. Y., Canton, Cleveland, Massillon and Youngstown, Ohio.

To: Orlando, Fla.

Grounds for relief: Competition with rail carriers, circuity, and to apply over short tariff routes rates constructed on the basis of the short line distance formula.

Schedules filed containing proposed rates: H. R. Hinsch, Alternate Agent, I. C. C. No. 4510, supp. 33; C. W. Boin, Agent, I. C. C. No. A-968, supp. 23; R. G. Raasch, Agent, I. C. C. No. 784, supp. 6.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission.

[SEAL] GEORGE W. LAIRD,
Secretary.

[F. R. Doc. 53-10227; Filed, Dec. 7, 1953; 8:48 a. m.]

[4th Sec. Application 28724]

PULPBOARD OR FIBREBOARD FROM GROVETON, N. H., TO BIRMINGHAM AND MOBILE, ALA., MEMPHIS, TENN., AND NEW ORLEANS AND BOGALUSA, LA.

APPLICATION FOR RELIEF

DECEMBER 4, 1953.

The Commission is in receipt of the above-entitled and numbered application for relief from the long-and-short-haul provision of section 4 (1) of the Interstate Commerce Act.

Filed by: The St. Louis-San Francisco Railway Company for itself and on behalf of carriers parties to Agent C. W. Boin's tariff I. C. C. No. A-899.

Commodities involved: Pulpboard or fibreboard, carload.

From: Groveton, N. H.

To: Birmingham and Mobile, Ala., Memphis, Tenn., New Orleans and Bogalusa, La.

Grounds for relief: Competition with rail carriers, circuitous routes, and operation through higher-rated territory.

Any interested person desiring the Commission to hold a hearing upon such application shall request the Commission in writing so to do within 15 days from the date of this notice. As provided by the general rules of practice of the Commission, Rule 73, persons other than applicants should fairly disclose their interest, and the position they intend to take at the hearing with respect to the application. Otherwise the Commission, in its discretion, may proceed to investigate and determine the matters involved in such application without further or formal hearing. If because of an emergency a grant of temporary relief is found to be necessary before the expiration of the 15-day period, a hearing, upon a request filed within that period, may be held subsequently.

By the Commission.

[SEAL] GEORGE W. LAIRD,
Secretary.

[F. R. Doc. 53-10255; Filed, Dec. 8, 1953; 8:47 a. m.]

[Drouth Order 47, Amdt. 2]

[Drouth Order 48, Amdt. 1]

[Drouth Order 49, Amdt. 2]

[Drouth Order 50, Amdt. 1]

[Flood Order 4, Amdt. 1]

TRANSPORTATION OF HAY, FEED AND LIVESTOCK IN CERTAIN DISASTER AREAS AT REDUCED RATES

EXTENSION OF EXPIRATION DATES

In the matter of relief under section 22 of the Interstate Commerce Act.

Upon consideration of a request by the Acting Secretary of Agriculture dated December 2, 1953, to extend the expiration date of these orders:

It is ordered, That the orders previously entered herein, be, and they are hereby, amended to extend the expiration date from December 31, 1953, to and including June 30, 1954.

It is further ordered, That notice to the affected railroads and the general public shall be given by depositing copies of these orders in the office of the Secretary of the Commission and by filing copies with the Director, Division of the Federal Register; and that copies be mailed to the Chairman of the Traffic Executive Association-Eastern Railroads, New York, N. Y., the Chairman of the Southern Freight Association, Atlanta, Georgia, the Chairman of the Executive Committee, Western Traffic Association, Chicago, Illinois, the Traffic Vice-President of the Association of American Railroads, Washington, D. C., and to the President of the American Short Line Railroad Association, Washington, D. C.

Dated at Washington, D. C., this 3d day of December 1953.

By the Commission, Commissioner Alldredge.

[SEAL] GEORGE W. LAIRD,
Secretary.

[F. R. Doc. 53-10260; Filed, Dec. 8, 1953; 8:47 a. m.]

[Drouth Order 51]

TRANSPORTATION OF HAY AND FEED TO UTAH AND WYOMING

REDUCED RATES

In the matter of relief under section 22 of the Interstate Commerce Act.

It appearing, that by reason of a prolonged drouth existing in the States of Utah and Wyoming, the Acting Secretary of Agriculture by letter dated December 2, 1953, has requested the Commission to enter an order under section 22 of the Interstate Commerce Act authorizing railroads subject to the Commission's jurisdiction to transport hay and feed to Utah and Wyoming at reduced rates:

It is ordered, That carriers by railroad participating in the transportation of hay and feed to Utah and Wyoming be, and they are hereby, authorized under section 22 of the Interstate Commerce Act, to establish and maintain to and including June 30, 1954, reduced rates for such transportation, the rates to be published and filed in the manner prescribed in section 6 of the Interstate Commerce Act except that they may be made effective one day after publication and filing instead of thirty.

It is further ordered, That the class of persons entitled to such reduced rates is hereby defined as persons designated as being in distress and in need of relief by the United States Department of Agriculture or by such State agents or agencies as may in turn be designated by the United States Department of Agriculture to assist in relieving the distress caused by the drouth.

It is further ordered, That during the period in which any reduced rates authorized by this order are effective the carriers may, not withstanding the provisions of section 4 of the Interstate Commerce Act, maintain higher rates to directly intermediate points and maintain through rates in excess of the aggregate of intermediate rates over the same routes if one or more of the factors of such aggregate-of-intermediate rates is a reduced rate established under the authority of this order.

And it is further ordered, That any tariffs or tariff provisions published under the authority of this order shall explicitly so state, making reference to this order by number and dated.

And it is further ordered, That notice to the affected railroads and the general public shall be given by depositing a copy of this order in the office of the Secretary of the Commission and by filing a copy with the Director, Division of the Federal Register; and that copies be mailed to the Chairman of the Traffic Executive Association-Eastern Railroads, New York, N. Y., the Chairman of the Southern Freight Association, Atlanta, Georgia, the Chairman of the Executive Committee, Western Traffic Association, Chicago, Illinois, the Traffic Vice President of the Association of American Railroads, Washington, D. C., and to the President of the American Short Line Railroad Association, Washington, D. C.

Dated at Washington, D. C., this 3d day of December 1953.

By the Commission, Commissioner Alldredge.

[SEAL] GEORGE W. LAIRD,
Secretary.

[F. R. Doc. 53-10261; Filed, Dec. 8, 1953; 8:48 a. m.]